CURRENT NOTES

Helping Atari Owners Through the World of Computing

Vol. 13, No. 4

May 1993
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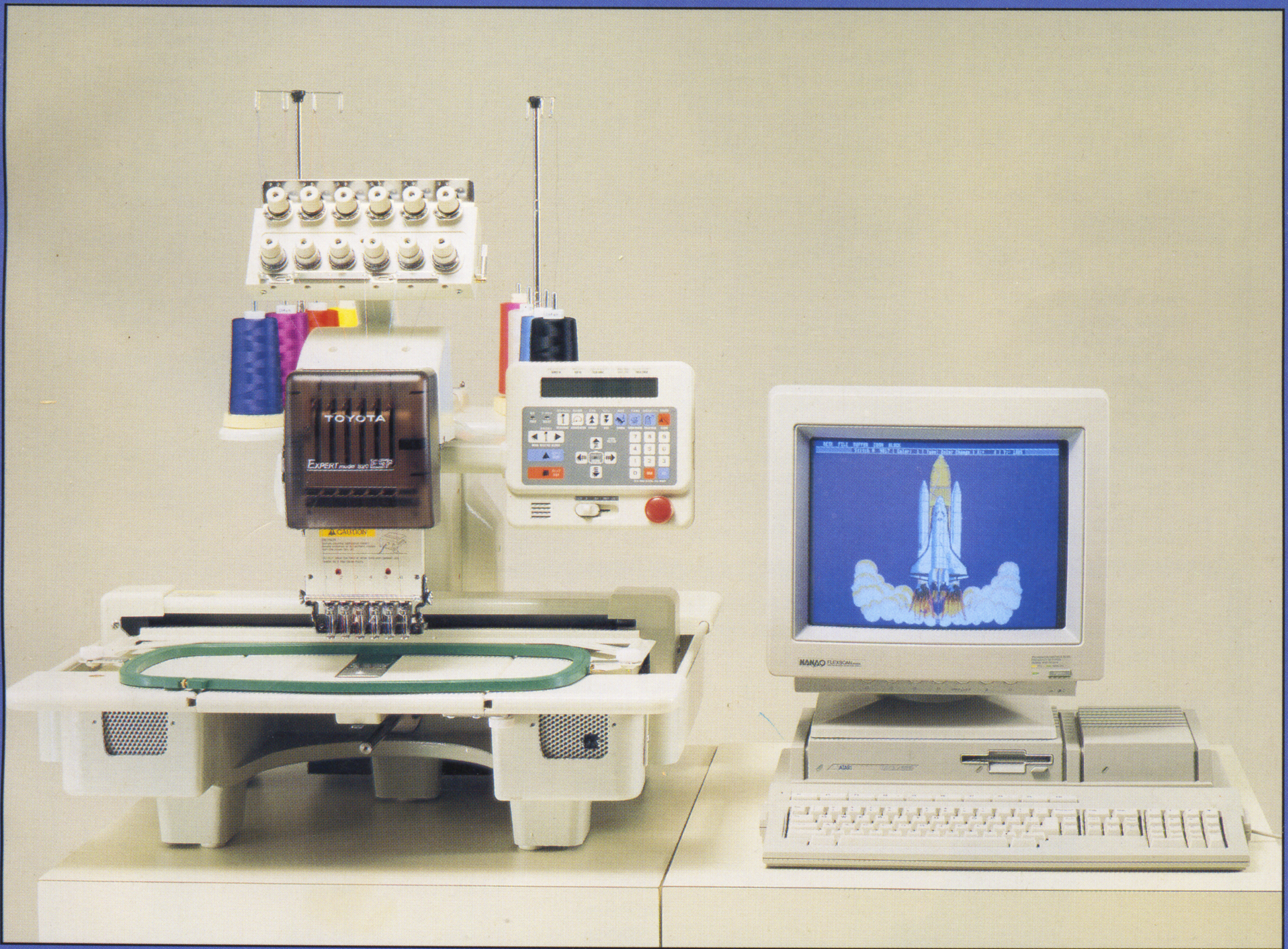

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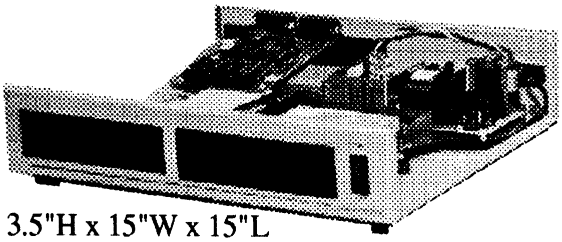

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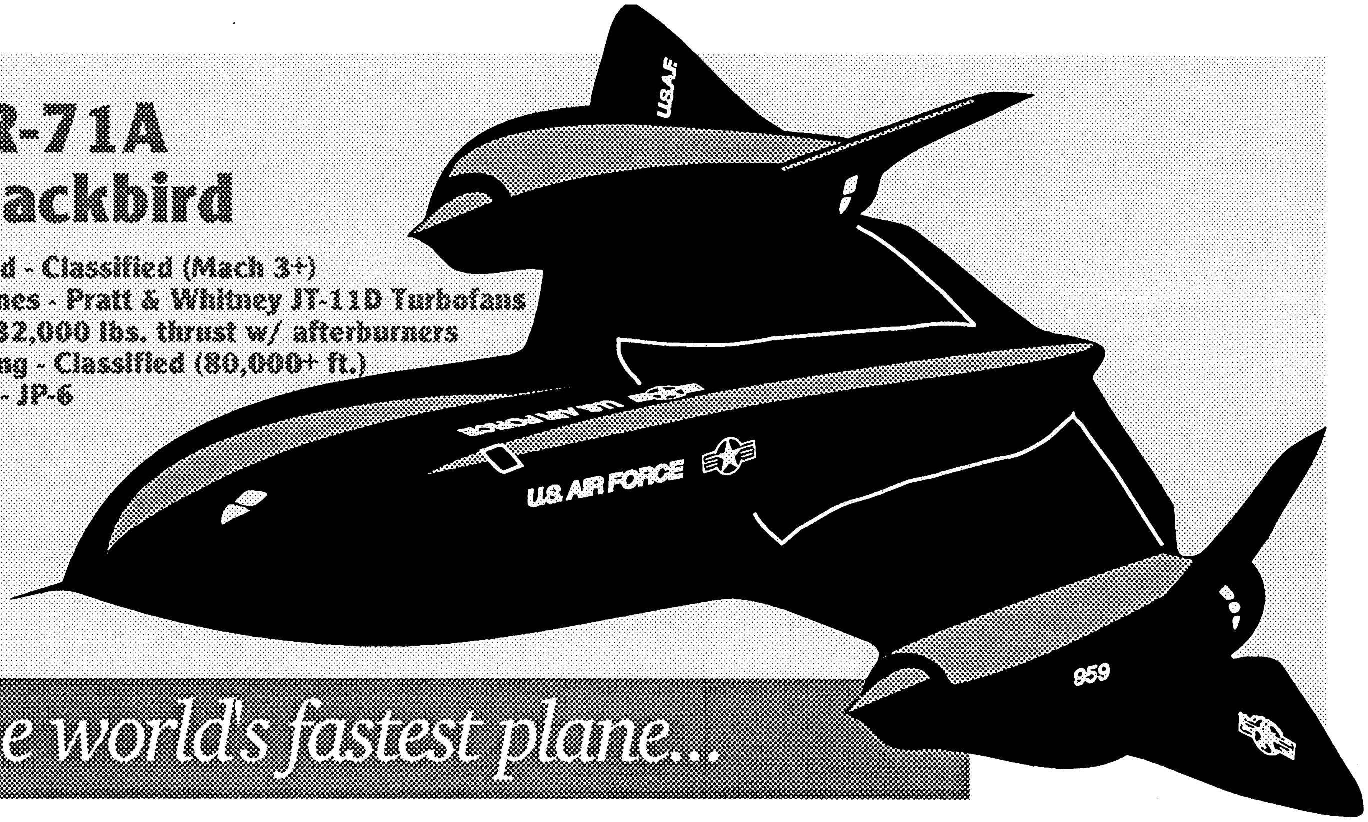

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From the Editor's Desk

Unlike the big, fancy publishing houses, we at *Current Notes* do not plan things months in advance. We have a number of columnists and writers who regularly write for us. I recruited the columnists to handle particular areas, but each writer chooses his own topic each month. Not only don't I try to "dictate" the contents of *CN*, I don't even know what will show up. I am often as surprised as you at what appears in each issue.

I mention all this just to underscore how impressed I was with the material that arrived for the May issue of *Current Notes*. I really enjoyed the articles that our writers sent in this month. I think you will enjoy them, too.

From Germany, Oliver Steinmeier gives us an exclusive report on CeBIT 1993. His investigations following the show also revealed a number of things not generally known before.

At one time, I was president of the Washington Metropolitan Organ Society. Before computers, I played my Lowrey Organ. I don't particularly like organ music, but I loved all those buttons that let me turn the instrument into any kind of band I wanted. MIDI sounds like just the thing–if I ever had the time to play again. Well, Gary Woods' "MIDI on a Budget" article is just what one needs to get started in this exciting musical field.

Who said the Atari TT doesn't sell? Well, Data–Stich, Inc. uses the Atari TT as the center of its computerized embroidery system and the whole package sells very well indeed. Read all about it in this issue.

We, and others, have been predicting that telecommunications is going to become very important. John "Junkyard Pussycat" Barnes takes us a few years in the future and explores the new data superhighways. We're not as far away as you might think.

Right now, you can join online "conferences" and converse with others throughout the country, indeed, throughout the world. What? You don't know how? Well, then read "STaying in Touch" to find out how conferences work on CompuServe, and "GEnie Notes" for instructions on that service.

Lou Rocha manages to bury a number of interesting features under the "GEnie Notes" banner. Fans of CodeHead will not want to miss this month's developer spotlight; trust me.

Dave Troy has a knack for taking complex subjects and laying out the bare essentials for the rest of us. He's done it again. Read about local area networks in "Myths and Mysteries." You'll learn not only about LANs, but a bit more about computers in general.

Although industry is working feverishly to connect all their computers into LANs, for many, these machines remain a "personal" productivity tool; at least, people would like to think they are. Explore, along with Henry van Eyken, the distance the industry has yet to go to achieve real personal productivity.

Look, here I am out of space, and I haven't even mentioned Andrzej's review of *HighSpeed Pascal* or Dave Barkin's look at *Invision Elite* or Patrick Raymore's review of *C–Font*. And Rick Reasor? Why, there are two reviews, a tutorial, and a place to go for help for the eight–bit crowd. Steve Kiepe, who drafted the Data–Stich article, also gives us a sobering analysis of Atari's business prospects as we all await the Falcon. And Dave Small? Well, if you haven't heard the Eric and Nicholas Tesla story, you are in for a treat with this month's "Small World."

– *Joe Waters*

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Time to Renew?

Take a peek at your mailing label. If you see the expression 9305 on the first line, then your subscription expires in 1993, month 5, i.e. the May issue is the last one in your current subscription. If you see 9306 or 9307, your subscription will soon expire. Please RENEW as soon as possible to avoid missing any issues of CN. You can renew using your MC or VISA card by calling (703) 450–4761. Many thanks for your continued support!

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Don't forget to send in a CHANGE OF ADDRESS notice if you are moving. Current Notes is distributed via 2nd class U.S. mail. The post office does not forward 2nd class publications; they throw them away!

Letters to the Editor

Uninvited Help

To the Editor,

A short time ago, I purchased some software at a close out. I assume the software house was going out of business. One of the items was, *The Uninvited*, by Mindscape.

We are now stumped by this game and, after some months, are unable to proceed any further. Would anyone have a few hints and save our sanity? Any suggestions would be gratefully appreciated.

F. Schubert
12 Pausley Ct.
Selkirk, NY 12158

Kudos for ICD

Dear Joe,

This is the first time I have written other than to renew my subscription. Your publication is exceptional and most of the Atari people I know consider it as their favorite magazine. I hope that you can Keep on Keeping on.

ICD's Ad Speed. The driving force that caused me to write was the excellent treatment I received from a long time Atari vendor. Last fall, while attending the Connecticut Atari show, I purchased an ICD AD Speed (16 Mhz) CPU accelerator. Due to the many trips that I do for my work, by the time I installed the device, it was already out of warranty. Much to my dismay, after finally getting it installed, the unit kept bombing. So I got in touch with ICD and, after I explained my situation, they told me to send the unit back. After factory testing, they sent it back and I re-installed it. After a short period of time, it started bombing again. I determined, by rigging up a temporary fan, that the thing was very heat sensitive, so I called ICD back and told them what I had discovered. Without further hassle, they sent me a brand new unit, which has performed as advertised. My hard drive host adaptor, also ICD, has been running without a glitch for seven years (I did change the clock battery). I would not hesitate to recommend any ICD product to your readers as this is a solid company that stands behind what it sells.

Correction. In your latest issue (Mar 93) there is an insert on page 7 on how to solder in a diode to solve the Deskjet 500 power up sequence problem. I have no qualms with the article in general. In fact, I installed the diode in my 520 when this article first came out on one of the bulletin boards and it works!! There is a misstatement in the article, which is, "The banded end of the diode is the anode." The banded end of a diode is the CATHODE and some of the power supply type rectifiers have the band and a + sign. I think this all started years ago when the seleniums and so forth were marked for the technician who replaced the TV rectifiers and the + always went toward the output of the B+ power supply. For anyone who wants to pursue this, the Radio Amateurs Handbook has an explanation in the DC theory section. The article has the direction of the diode OK as written; it's just the "anode statement" that's wrong.

Outburst. I purchased *Outburst* directly from Frank Polaski the other day and I couldn't believe the improvement it made in printing out *Pagestream* docs. A super program at a very reasonable price.

Keep up the good work. We're all with you and keeping fingers crossed on the introduction & success of the Falcon.

Dave Newell
Pepperell, MA

Gemulator 2.10b?

Dear Joe,

I meant to write ere now to at least thank you for the phone call last Fall. The Atari Corp. continues to prove over and over again that it does not deserve such a staunch supporter as yourself.

I feel compelled to take some slight exception to the views expressed by Mr. Gunter ("Starting Block," p.22, March 1993 CN). Getting used to a PC-DOS Windows system after many years of the unimaginative and unchangeable Atari 8-bit and ST has not, in retrospect, been all that easy for me. The continuing improvements and newly-developed software available for the PC far outweigh the admitted difficulties with memory management. I have to admit that it has forced me to think occasionally.

On to Mr. Wrotniak's "ST Toolbox (p.64, op cit). Just where did he get version 2.10b of Gemulator? I felt good enough about the results I was getting with the Version 2.10 I received in January that I attempted to load *Calamus SL* into my 486 / 50MHz / 8MB machine. Something happened when we got to the *Calamus* SYS folder. DOS apparently interpreted it as a ?.sys file and made a weird-looking disaster of my C partition. Not even Norton *WIPEINFO* could get rid of one of the pseudo files produced. After repartitioning my 203 MB hard drive, I removed the Gemulator board (why take chances?) and now patiently await some kind of instruction and assurance from young Mr. Mihocka that I will eventually be able to use *Calamus SL* on my PC. This was, afterall, the excuse I used for purchasing the PC system in the first place. Since I have really learned to like the PC, I guess I owe thanks to Gemulator, after all.

Keep up the good fight!

J.L.Smith
Canyon Country, CA

Incredibly Nice Atari People

To Whom It May Concern,

...I have been an Atari ST user for a few years now and I must say that your publication is a wonderful source of information for me. I originally bought a 1040 STfm for my MIDI production studio. I soon realized the incredible potential I had for branching into other computer related areas.

One of my first non-MIDI related ventures was to customize my invoices, letterhead, etc. with a public domain program that I read about in your magazine. It is called *ART ST* written by Robert Birmingham. I checked it out because it would work in mono (the only monitor I had). Well, much to my surprise, I found out the Robert lived here in Miami, FL.

I decided to given him a call since I was having some trouble getting my printer to talk to my ST. In a matter of seconds, Robert had helped me solve my problem. Robert is just one example of the incredibly nice people who program and develop software for the Atari line of computers (BTW—Robert now lives in IL). The Codeheads, Wintertree Software (Phil Comeau), Gribnif, and Dr. Bob are just a few of the other "Atari" people I have had pleasant dealings with. I honestly think that if I had purchased another brand of computer I would not have been so eager to branch out into non-MIDI fields.

I have continually upgraded my system from my original 1040 STfm to an AD-speeded Mega 4 with a 19" Moniterm and Sysquest hard drive. Your magazine has kept me abreast of all the major happenings and product announcements in the Atari world so that, when I do make a purchase, I can feel confident that I have all of the information I need. Please continue your great coverage.

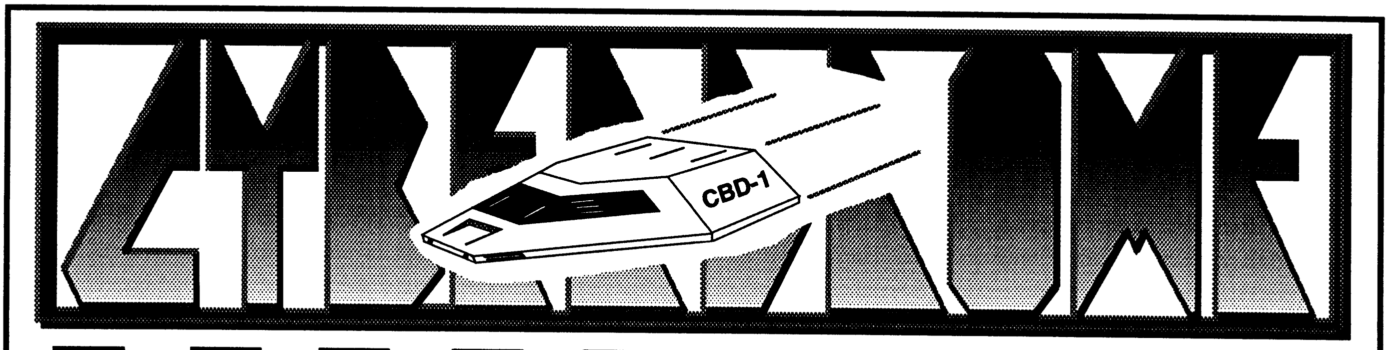
Sincerely,
Mayer Ersoff
Miami, FL

8-Bit Camero Not Feasible

Dear CN,

...A note to Dave Small and his idea to use an 8-bit in his pet Camero. As both an electronic technician of 17 years and an auto mechanic from the back yards of Texas, I say while it may look "neat" to have your car monitored by a computer, over all, it's not really feasable. First off, the hard/floppy drives could not take the strain of having their heads bounced all over the place, no matter how good your shocks are, and 2nd, the centrifigual forces would play hell with disk pointer alignment. But if you can manage to display the information with a 4 meg Epram or Eprom instead, then the idea would look great, but would still remain a showboater and not worth the effort. And, oh yeah, this is also from veteran drivers who make race car drivers appear to be wimps as they have no real safety devices installed in their vehicles. Just ask any Highway Patrol Officer or your local Yokal and they may be able to give YOU a test drive in a car to put your Camero back in the garage! No, I use my gas gage, odometer and temp gage to monitor all of my vehicle's progress and a digital tachometer, as well. With a 1977 Chevy 1/2 ton modified for 1 ton pick up, and over 345,000 original miles using only Penzoil and straight Prestone anti-freeze and over 200 years of experience in maintaining an automobile, I do know what I'm talking about. Besides, heat generated inside the Camero by solar radiation would also damage tracks on either a hard or floppy drive. I've lost nearly 1.5 megs of space on my LPS-120 and paid dearly by also losing nearly 83 megs of data stored. Some of us feed our children with what we know.

Respectfully,
Joe Brownlee
Oakland, CA



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STanding STill

by Steve Kiepe

Clear the Runways!

I had a strange dream last night. Elvis was sighted at a Washington D.C. area McDonalds having a Big Mac with the president and Jim Morrison; Pat Buchanan announced that he was in favor of gays in the military; Republican senators joined the Democrats in passing the President's economic stimulus package unchanged; and the Atari Falcon shipped en mass to a growing multitude of dealerships in the U.S. and quickly gained a significant share of the computer marketplace. No, I don't take drugs and, yes, a court appointed psychiatrist has found me legally sane.

Fasten Your Seat Belts!

Going back to an aviation analogy (my favorite kind), Atari and the Falcon have just commenced taxiing toward the runway in preparation for takeoff. The storm clouds are low, visibility bad, the engine is running rough, and the pilot's flight record is shaky, at best. Nonetheless, Atari has clearance to take off, and is piloting the new flagship of their line. Their jack-of-all trades computer has a lot of attention from the onlookers, some of whom want to get in on the first flight; but most appear to be watching and waiting. In the meantime, their company has but a solo single engine aircraft in a world of 747 fleets. It's going to take some pretty spectacular aerobatics in full view of a large audience if the Atari corporate name is going to become synonymous with anything other than mishaps.

Falcon's Available for Sale to Users? *NOT!*

Actually, Atari has moved a tiny step forward now that Falcons have reportedly arrived in the U.S., cleared customs, and are in the Sunnyvale warehouse undergoing final QA testing. If all goes well, the systems should be enroute to dealerships the week of 20 April. *However,* these are not units intended for retail sale; instead they are slated to be dealer demo units (per Bob Brodie's GEnie interview of 14 April). That this further intentional "delay" was somehow never made clear during the long waiting period in March and early April must surely be an accidental oversight. Now Bob "promises" that Falcons destined for sale to users are enroute and are expected within two to three weeks, four at the outside. If, by the time you read this column, the authorized dealerships don't have machines for sale, then Atari will have fallen to an all-time new low, even by their past standards. It is not my intent to denigrate Atari in this column, but their past history has continually demonstrated an inability to be frank and forthcoming. Instead, we'll just report the facts as best we know them, and let you draw your own conclusions.

Soft-Logic Punts!

Soft-Logic has announced the imminent release of *PageStream 3.0* for the Amiga. When queried about potential release of *PageStream 3.0* for the Atari ST series, Michael at Soft-Logic posted a message on GEnie that a decision on whether to port *PageStream* to the Atari wouldn't be made until approximately June, after the Amiga version ships. In response to a lot of subsequent inquiries, he reported that to port version 3.0 would require the sale of tens of thousands of Falcons. Finally, in response to my message concerning support for the many Atari users who had supported Soft-Logic throughout their early and rather shaky years, he posted the following response:

"...If Atari sells a lot of Falcons (hundreds of thousands to new users), we can port 3.0. If they don't, we cannot port 3.0 hoping that this will spur their sales. (That's what we did with 2.2. ;-)"

Come on guys, *hundreds of thousands*?! I'm not a software engineer, but I certainly would expect that a company that has the source code to the old versions, and to the Amiga versions, and which has been reworking the same program for many years could make a profit without imposing such constraints! I'm a *PageStream* user, have been one since the early days, and I dumped *Calamus 1.9N* because I wanted to become proficient at one DTP program. (I dumped VHS several years ago in favor of Beta due to the same type of reasoning). To be fair, Soft-Logic is not the only developer to make this decision, but it seems that Soft-Logik simply doesn't want to be bothered with Atari, but doesn't want to come right out and admit it. I recommend that those of you who use this program, and want future support, make your views known. We don't need a repeat of the WordPerfect pullout. Further, prior to buying this program (if you don't already have it), be certain that it will meet all your needs *as is.*

On-Line Conversations and Follow-Up

On a totally unrelated issue, in the past two weeks there have been several GEnie on-line conferences with Bill Rehbock, Atari's Technical Director of Software Development, and Bob Brodie, Atari's Communications Director. I had the opportunity to ask Bill a few questions on-line, and subsequently called and talked to him directly on April 12th. On the phone, he sounded reasonable, enthusiastic, and certainly dedicated to the Atari marketplace and making the Falcon succeed. I'd like to share a few highlights with you as they tend to amplify the information available on-line and offer a little more insight as to where Atari is headed.

There have been a lot of questions regarding how users can obtain a Falcon, once they arrive. There have also been a few messages posted by "unauthorized dealers" who feel they can't comply with Atari's dealership requirements. Bill confirmed that mail-order is *not allowed* without Atari's permission. As of the 12th of April, he reported that no dealers had yet received that permission. Further, all dealers, not just mailorder, are allowed to post only the manufacturer's suggested retail price for the Falcon, not "sale prices." The logic behind this is straightforward: Avoid an open price war that kills the ability of new dealerships to survive. Once a customer arrives at a dealership, the dealer is free to sell the machines for anything he likes. Chalk this one up for Atari; this rule makes sense when you are trying to build a new dealer base.

Dealership Agreement

Next, the dealership agreement itself: Several dealers have reported that the new agreement is far less onerous than past agreements, and does not require as large an investment in order to carry Atari products and receive the Atari stamp of approval. Some new dealership names have been dropped in areas where dealerships had disappeared so, on the surface, things appear to be improving. Despite this, in the GEnie on-line conference of 7 April, Bill noted that the heat to get the Falcon's to the dealers was not as high as it could be because "...many (not all) of our dealers have been slow in turning in their new dealer agreements..." Later in that conference, I asked what kind of advertising campaign was to be accomplished. Bill responded that there was "...some good stuff in the works. The more dealer area we have in the wings, the larger the scale it will be." I felt that this was a vicious circle, i.e., small dealer base now, hence large areas with no advertizing, no place to buy, no new dealers, etc. but Bill replied that new dealers were being signed up.

In my followup conversation on the 12th, I went back to the question of dealerships in an attempt to see what the future holds. Bill reported that there are many new area dealer representatives who are combing the country looking for potential dealerships. He stated that Atari will follow up user provided leads that we choose to forward to Sunnyvale as supplements to their existing contact lists but that progress is ongoing regardless. Advertising will then spread out in those areas with a dealership base, and Bill sees it as a progressive campaign that will build the dealer base fairly rapidly. The exact campaign strategy is not yet apparent, and Atari's ability to recruit new dealers is as yet unknown; but if the new dealer agreement is as favorable as indicated, it is likely that Atari could make some inroads in non-exclusively DOS computer stores. Of course, not all dealers have even looked at an agreement as yet; Bob Brodie noted in his on-line interview of April 14th that the Canadian agreements would be going out that week.

Concerning the availability of service for Atari machines and the past "near agreement" reported between GE and Atari, Bill said that service agreements were still being researched; however, there are two different levels of service that can be elected by new dealers. Additionally, with only six major components in the Falcon to be considered, the availability and ease of service should be greatly facilitated.

German Observations and the AtariMesse

Oliver Steinmeier reports his impressions of the CeBIT 1993 show for this issue of *Current Notes* and has numerous observations about the situation in Atari Germany. One concern he expresses is the apparent demise of a dedicated Atari Messe in Duesseldorf this year. Several sources have reported that if there is a Messe, it will be multi-platform, as opposed to an Atari only show. I posed the question to Bill and he said he was unable to confirm that rumor as of 12 April, instead waiting for an official word from Atari Germany.

One area that causes a lot of concern to current Atari users is "where are the follow-on machines?" All of Atari's computer interests appear (on the surface) to be focused on the Falcon in its current incarnation. Although Oliver reports that there were discussions in private about potential follow-on machines, Atari revealed nothing, while surrounded by a plethora of other computer makers, all showing entire families of new computers. With this in mind, I approached Bill with questions about what Atari was seeking to achieve with the Falcon, how they would be marketed, and planned future development.

It's a Home Machine, Stupid!

Without reservation, Bill stated that Atari is focused on marketing the Falcon to the *home user*. This is their primary focus, and in some areas, it appears that they will be making appropriate decisions. I personally feel the inclusion of *Atari Works* in the Falcon bundle is a great idea, offering the new user a significant capability right out of the box. Similar to the introduction of the Atari 520ST with *First Word*, *Neochrome*, and other assorted software, a bundle of basic (and advanced) software gives the new user the ability to do something constructive with his system immediately after purchase. The friendly Atari operating environment is an aid to the novice, and should make potential purchasers much more comfortable with their prospective purchase. I do have a few reservations about what is not being said about the marketing campaign. These are:

1) Advertising Focus
2) System Capabilities
3) System Compatibility
4) Industrial Competitiveness

Blurry Vision

First, the advertising focus. Bill said that the Falcon is dedicated to the home market. If you look at the CeBIT reports that he and others posted, a great deal of the Falcon developer's push is in the direction of high-end programs and/or the music industry. Bill noted that Atari had pushed for Compo to release the low-cost *Musicom* program, a direct-to-disk recording system that, among other things, would give the home user a capability to perform Karoke routines. Whatever the intentions, it seems that the reported focus, and the execution of the plan, are going in divergent directions. During the 14 April GEnie on-line conference with Bob Brodie and James Grunke, Atari's Director of Music, Bob was asked what national advertising was planned, specifically would the Falcon be listed in mainstream magazines such as *Newsweek*, *Time*, etc. Bob's answer listed *only* music magazines. I may be wrong, but most people don't have copies of *Digital F/X*, *EMAGIC*, or *Fostex* on their coffee tables. Focus?

Inappropriate Capabilities?

Second, let's look at system capabilities. The Falcon has some amazing capabilities and will lead the industry in areas such as the incorporation of a DSP chip, SDMA sound co-processor, and direct-to-disk recording capability right out of the box. The question remains, however, "What will be done with these capabilities?"

If I were a musician, I would love the direction Atari seems to be moving. As one major Atari hardware designer told me lately in response to my question concerning future products from his company, what's the point of all of this? In his opinion, most home users are not interested in the music industry, direct-to-disk recording (except for the ability to add some neat sounds to their menus), or the myriad of other capabilities offered. Further, the world of PhotoCD seems to be well ahead of the consumer's interests, as it is somewhat expensive to put the photos on disk, costs quite a bit to buy the CD reader, and can only be printed out adequately with very expensive color (or even monochrome) printers. Even if you could cut a picture of Aunt Bessie and Uncle Bill from the PhotoCD and paste it into a *Calamus* document, how many people are really going to be taking advantage of it? Are all these tremendous capabilities a waste?

What does a home user want to do? Well, looking at the sales figures for *Quicken* (although many copies are near given away in bundles) it appears that home accounting is one use. Also, almost every home user wants to be able to write a letter now and again. The ability to run mortgage or car loan tables to figure out what you can afford to buy is also quite popular. Many people want the ability to publish simple newsletters and notices. Finally, games are a welcome addition. The Falcon is capable of accomplishing all of the above. *Atari Works* is a great first and comprehensive step in this direction and greatly anticipated. Games are plentiful. But what other potential problems loom?

Compatibility and Industry Standards

Like it or not, a home machine is also a work machine. Anyone likely to become computer literate at home, is also likely to use a computer at work. The standard in the business world is MS-DOS, with Macintosh a very distant second. Computer users tend to bring bits of work home with them, for brush up, review, or just to finish that letter to cousin Melvin that was started at work. What's popular out there? *WordPerfect* (dropped Atari), *Lotus* (can be read by *LDW Power*, but its future is unknown), *Microsoft Word* (forget Atari), *Harvard Graphics* (really forget Atari), *Excel* (the same), or a host of other programs in a similar vein. If you go Atari, you nearly cut yourself off from the rest of the computing world unless you are prepared to suffer, and to pay to regain the capability.

Macs read DOS versions of the above programs, and vice-versa. Atari owners, through the efforts of Dave Small (Spectre) or Compo (Falcon Speed?) have some capability to overcome this obstacle, but it is not easily overlooked. One of the most common reasons an ex-Atari owner gives about the decision to abandon the platform is the lack of compatibility and equivalent software support. If Atari can't play with the big guys, easily and without apology, then how do they really expect to make it in the home market. Rather than Direct-to-disk or an advanced sound chip, maybe they should have ensured the inclusion of MS-DOS compatibility right out of the box, warts and all.

Industrial Competitiveness

The stock Harvard Business School teaching on a company's industrial competitiveness comes down to four primary factors:

1) Firm strategy, structure, and rivalry
2) Demand conditions
3) Factor conditions
4) Related and supporting industries.

Atari's structure is simple: Tramiels rule over all, and cut the rest of the infrastructure to bare bones. Their strategy is unknown, as we've already pointed out. Rivalry? Atari has none, as there is rarely competition for last place.

Demand conditions? Yes, there is, obviously, a large consumer demand for computers. Do they want Atari? It will have to be sold to the public; otherwise, the likelihood of Atari making even marginal gains into the home or business market is near insignificant.

Factor conditions? A factor condition is that characteristic(s) that allows a company to survive, even when demand drops. You must acknowledge that Atari is resilient. Their imminent demise has been forecast for several years now. Although their stock continues to hover at or below a dollar a share, they claim the availability of significant cash reserves, for what purpose we don't know. Of course, the fact that the company assets have been sold off piecemeal has helped greatly, but the time of reckoning seemingly continues to draw ever closer. Since the existing user base is small and rapidly falling, sales are insignificant, the dealer base must be rebuilt, and production of most products including the TT, ST Book, and other machines stopped, it's hard to imagine what factors exist that favor Atari's continued survival in the near future.

Related and supporting industries? Also in trouble. There is still strong support from companies like COMPO, DMC, and others, but the developer support base is insignificant in real terms. As I have already noted, many developers, even with the release of the Falcon imminent, have already made negative decisions regarding their future support for Atari computers.

Conclusion

For someone who always wants to be on the cutting edge, it is a bleak picture. There is little reason to expect a White Knight with a Fuji lance and a Falcon on his wrist to appear from over the horizon and slay the dragons of doubt and pessimism that are apparent in the Atari community this day. It may be that our spirits will be lifted for a time by the court jester with his colorful, entertaining Falcon interlude, while Merlin goes back to the castle tower and tries another approach. In the end, however, we are Atari users, owning computers that already possess more capability than most of us will ever be able to harness, and we should not be quick to abandon ship. With that thought in mind, and remembering that the MS-DOS 486 machines of today will be as obsolete in five years as the first PC XT's are now, we can strive forward knowing that, regardless of what happens, we can always give it another try tomorrow. Nothing lasts forever, so enjoy what you have as long as it serves you well. See you next month.

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CeBIT 1993

by Oliver Steinmeier

Once Again, Hannover Becomes the Mecca of Computing

The world's largest computer show, CeBIT '93, opened its gates on March 24. The capitol of the German state of Lower-Saxony, Hannover, was once again the Mecca of computing. Within a week, more than 660,000 visitors from all around the world came to see the latest developments on the hardware, software, and telecommunications sectors. Despite the fact that some companies like Novell and Borland had decided to cancel their participation due to the high costs, the 5,604 exhibitors this year (1992 had 5,402) marked a new record. After the debut of the Falcon 030 at last year's Atari show in Duesseldorf and the beginning of the shipments in Europe in late December, many experts considered the CeBIT '93 show to be crucial for Atari. Would it be possible to recreate the excitement that followed the debut of the original ST in 1985? Would CeBIT be the debut of new members of the Falcon family? How would Atari deal with constantly falling prices for DOS machines?

The traditional Atari booth in hall 7 offered several third-party developers the chance to show their latest products. After a first glance, it was clear that Atari itself was not showing any new machines. There were Falcon 030's everywhere, TT's were also used by several exhibitors at the Atari booth, and a few Portfolios demonstrated Atari's commitment to this product line. The ST Book, which had first been shown together with the STylus Pentop at the very same place two years ago, was not exhibited at the booth. A couple of Lynx video games caught mainly the attention of children.

Backstage Downsizing

The "backstage" area, exclusively reserved for dealers, press representatives, and Atari personnel, was substantially smaller than it used to be in the past. The second floor, which had been used as a lounge, had completely disappeared, and the new lounge on the main level was rather small.

Atari itself manned only about 15 of the 60 tables, and the personnel demonstrated new or already known Falcon software. The staff at the information desk was fairly uninformed. Asked if there were any Falcon games shown on the booth, they shrugged with their shoulders and admitted that they didn't know. A large 4x4-monitor video wall was used to demonstrate the video and audio capabilities of the Falcon 030.

Despite the record number of visitors at CeBIT in general, it seemed that the Atari booth was not as crowded as in past years. In the past it had often been impossible to talk to exhibitors and developers because of the masses standing around each table. This year, I had no problems talking to them and getting the information I was interested in. And while this helped those who came to see the new products, it also indicates the heavily diminished interest in the Atari platform.

The Atari booth was only a teeny little part of the entire CeBIT spectacle, and it simply wasn't possible for me to talk to every developer and gather information about all products. This report covers those new products that appeared to be the most exciting. Another criteria for the selection was the chance that a certain product might be available in the US. Unfortunately many European and German products that enjoy great popularity here never made it to the US market. *Signum!* (word processor), *Phoenix* (database), and *Kobold* (utility) are just some examples. Developers, when asked for the reason, usually admit that the costs for a translation are too high to justify marketing products in the comparably small US market.

New Products

The German hardware developer, GE-Soft, showed a prototype of an accelerator board for the Falcon 030. The 32 MHz 68030 provides a speed similar to that of a TT. Not yet implemented, but announced for the final product, is a VME bus port on the accelerator board. This would allow the installation of graphics cards in the Falcon 030. The size of the accelerator makes it absolutely impossible to install the $1,000-board within the heavily criticized 1040-style Falcon 030 case. The German company DDD has realized that there will be a high demand for new Falcon cases, and, therefore, showed a desktop case with external PC keyboard.

PAM Software showed *FalcoNet*, an Ethernet-based network for the Falcon that is based on standard PC Ethernet adaptors for the Centronics port. TKR announced a new version of the famous *Crazy Dots* graphics card. The new *Crazy Dots II* will now allow 16-bit high color and 24-bit true color graphics for the same price as the older version.

TradeIt finished the color graphics software *Chagall*, which runs on all STs, TTs, and supports the 16-bit high-color graphics mode off the Falcon 030. Also from TradeIt comes the hard disk recording software *Digitape*, which was one of the first products for the Falcon 030 and had already been presented at Atari shows in Fall 1992.

D2D showed its hard disk recording software and, one of the highlights of last November's Atari presentation at Comdex, the voice mail system, *Black Mail*, could be seen at the Digital Optical Analog table.

Not new, but still impressive, is the *ScreenBlaster* from Overscan. An external module allows the increasing of the Falcon screen resolution by up to 200%. A resolution of 1152x832 pixels is possible at 87 Hz interlaced. *ScreenBlaster* costs about $90 US.

HiSoft from the United Kingdom came with a whole bunch of new and improved software. The famous *Devpac 3* assembler and HiSoft's *BASIC* now run on all Atari systems including the Falcon 030. *TruePaint*, new graphics software, makes use of the 16-bit graphics resolutions of the Falcon.

Lexicor's rendering and raytracing software left an excellent impression; the demos clearly showed the power of these graphics tools.

The *Photo-CD* software, which created a great deal of publicity in Atari magazines lately, was shown at the Atari booth. I did not see a single Atari computer at the large Kodak booth, though.

Compo announced that the 80286-based Falcon *SPEED PC* emulator will be shipping by April 15. It will run with a Norton factor of 12. The 80486-emulator was not shown, and despite Atari's announcements in November at the Fall COMDEX, the future of this board remains unclear.

New Machines!

Atari decided not to show any new hardware; other computer makers, however, did not follow this example. Commodore, Atari's main rival on the home computer market, showed a tower version of the **Amiga 4000**, called A4000/T. The new Amiga 4000/030 marks the lower end of the new A4000-product line. It provides about the same features as the original A4000, but it hosts a 25-MHz 68030. The price of a 4-meg version with a 120-meg hard drive is expected to be $200 higher than that of a Falcon 030 with the same amount of RAM and a 65 meg drive. While Atari fully concentrates on the Falcon line, Commodore continues to increase its engagement on the DOS sector. The Commodore PC line consists of several machines, ranging from cheap desktop computers to high-performance 486/66 machines. With a 486 color notebook, Commodore also follows the general trend towards portable computers.

Pentium vs. Alpha

Intel decided to use the CeBIT show for the official debut of the Pentium P5 processor. The successor of the 486 was presented during a very impressive

Shown here is a *small* part of the fairground.

show by Intel's Senior Vice President David L. House. Compared to this extremely professional show in the CeBIT convention center, the official unveiling of the Falcon 030 at the Duesseldorf show in August 1992 was an amateurish presentation.

DEC is determined to make its new super-processor, Alpha, a huge success. The first workstations equipped with the 64-bit CPU are already shipping, and at CeBIT the new Alpha-PC was shown to the public. The Alpha CPU gives the PC twice the speed of a Pentium-equipped machine, and DEC says that they are going to sell the CPU at a lower price than Intel wants for the Pentium (neither price has been published yet). Windows NT, Microsoft's new multi-platform operating system for PCs and workstations, runs on both architectures and could be seen at several booths.

NeXTStep, another very sophisticated operating system from Steve Jobs' NeXT Computer company, is now available for Intel 486 machines. It is expected that it will be ported to other architectures as well.

PC + SEGA MegaDrive

Amstrad, a British PC maker, proudly showed the MegaPC 386SX. This new machine is clearly aimed at the home market and comes with a 386SX CPU and a 68000 processor. The Intel CPU ensures DOS compatibility. The Motorola 68000 turns the PC into a fully compatible SEGA MegaDrive video game. Original SEGA cartridges can be plugged into a slot at the front side of the desktop case.

A clear trend goes towards notebooks. Almost every PC manufacturer had a family of DOS notebooks. Some companies have already decided to discontinue the 386-based machines and focus on the more powerful 486 notebooks. Active-matrix color displays offer excellent screen quality at more and more affordable prices. It was obvious that, in the near future, almost all notebooks will be equipped with one or two PCMCIA slots for external modems, SCSI and ethernet adaptors, or other external devices. This standard slot will lead to cheaper peripherals.

General Thoughts

My general impression of CeBIT was that the computer industry, although in the middle of a deep crisis, is constantly developing new and more sophisticated and powerful products. Atari appeared to be one exception. The lack of new products from Sunnyvale disappointed many visitors. In private conversations with developers and fellow journalists, I got the impression that many are very uncertain about Atari's chances of staying in business. While Commodore's PC and Amiga lines bridge the entire price range from home computers to high-end personal computers, Atari's main (if not only) product is the Falcon 030, and this means that Atari dies if the Falcon dies. I visited three Atari dealers in different cities in Germany lately, and all three had Falcons in stock. Apparently, it is no problem to buy a Falcon here. The machines shipped to Germany so far are by no means sold out.

Many visitors and developers had hoped to see a clear indication of Atari's commitment to the Atari platform. The announcement of a Falcon 040 or a two-piece 68030-Falcon would have helped the developers of commercial business software. Their traditional market segment is no longer supported by Atari due to the lack of machines for business tasks, and the developers are being forced to move on to other platforms. Application Systems showed the Windows version of their powerful database *Phoenix* at the Atari booth. DMC is planning to release a *Windows NT* version of *Calamus SL* as soon as the operating system itself is available; a beta test version was shown at CeBIT on Olivetti workstations and the developers were very satisfied by the huge interest in this sophisticated piece of software.

Due to the lack of new Atari products, Atari had not scheduled a press conference. The official Atari press kit contained a few press releases about products that had mostly been known before. Two brand-new brochures about the Falcon multimedia concept and the available software looked great at first sight, but once one starts to read the text, typos in 1-inch headlines and stylistic flaws ridicule Atari's attempt to underline the professionalism of the Falcon product. It is absolutely impossible that this German(!) brochure was ever proofread by a native German speaker. Some words even contain characters that don't exist in the German language. Rumors that the entire Atari staff (including warehouse workers) in Germany is down to less than 20 people seem to be supported by these brochures.

A rumor was circulating that there would not be another AtariMesse in Duesseldorf this summer. After CeBIT, on April 8, 1993, I called Atari's press agency to get confirmation of this rumor. From what I was told there will definitely *not* be a solely Atari-dedicated show in Duesseldorf this year. There are talks about organizing a swap meeting for different platforms (DOS, Amiga, Mac), but unlike the world-famous AtariMesse, the fair would not be organized and managed by Atari. The official reason for Atari's withdrawal is that a multi-platform show could draw more visitors, and that a third-party organizer could operate more cost-efficiently. Experts, however, think the real reason could be that Atari believes that a show dedicated to the Atari platform would unveil the real size of the Atari market today.

The rationale for a multi-platform swap meeting in Duesseldorf is questionable, since the traditional multi-platform Computer Shopper Show (CSS) in Cologne (50 miles from Duesseldorf) last Fall was not a major success. During the conversation with the press agency staff, I asked about Atari's plans for the future. I was told that, as of early April, about 5,000 Falcons were shipped to Germany. Only 1,800 of them had been sold. The Falcon 030 is said to be one member of an entire family of computers. Atari is planning to release smaller machines with reduced capabilities as well as high-end machines. The rumor that low-end machines could be sold without ROM port or DSP was not confirmed. Atari is thinking about offering a machine for less than 1000 marks ($625) in the US. This could be a one-meg Falcon 030 without hard drive.

It was also confirmed that Atari discontinued the production of the ST Book (was sold in Europe) and the Atari laserwriters. Atari still has large quantities of laserwriters in stock, and will continue to sell those. Until now, no company has been found that will develop an SCSI-ACSI interface for the Falcon to allow the use of Atari laserwriters with the new bird. There are talks with a German company underway, but as of now, nothing is under development. This clearly contradicted information released by Atari on several occasions since last summer that there would be a third-party product available soon.

Atari is planning to release new video game consoles this year. I asked if that meant the so-called "Jaguar," and was told that the Jaguar will not be the only new console.

The press agency is currently working on a new public relations campaign for Germany. A new advertisement strategy for the Lynx, for the Falcon 030, and for the new video game consoles is planned. However, it will take about three or four months before the first ads will be seen.

Conclusions

My general impression is that the Atari platform faces a rough future. Atari has to release new machines as soon as possible in order to keep current ST and TT users from moving onto other platforms. The Falcon 030 caters only to a small segment of the entire market, and it does not provide the "Power Without the Price" that made Atari famous in earlier times. Massive advertisement campaigns are needed to get a larger market share. Despite the endless delays in the introduction phase, the planning for the public relations campaign is not yet finished. I have not seen a single ad for the Falcon 030 in any (German) magazine or newspaper, and the rather small number of machines sold should, therefore, not be a surprise.

About the Author: Oliver Steinmeier is the author of numerous computer books for the Atari and has been a freelance journalist for Atari Journal and other German magazines since 1984. As a graduate student at Karlsruhe University, Germany, he has been engaged in the development of the KBS multitasking operating system.

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ST TOOLBOX

by J. Andrzej Wrotniak

Catching Up

Improved HighSpeed Pascal, Gemulator Screen Drivers, and Why Atari Is Still Alive

Looks like the winter is finally over. Days are longer, grass greener, and there have been some sightings of migrating Falcons, flying in from faraway lands to the good old US of A. People around are trying to be nice and mellow, therefore, I will also try not to offend anyone in this column.

HighSpeed Pascal Improved

Last May, I reviewed *HighSpeed Pascal 1.0* here. The title of the review serves as a brief summary: "A Missed Chance of Being the Best." A good compiler was crippled by some arbitrary limitations, a series of small bugs, and inadequate documentation.

For those interested, but too lazy to dig into their old issues of *Current Notes*, let me include a brief summary on *HighSpeed Pascal.*

Upsides: a very good language standard (source-compatible with *Turbo Pascal 5* on the PC), nice integrated environment, lightning compilation speed.

Downsides: PC-inherited data size limitations, missing procedural parameters to procedures, improperly implemented BYTE and WORD types, a number of bugs in the environment, compiler and libraries.

A year passed and some good things happened. First of all, the compiler finally has a solid US distributor. Oregon Research Associates seem to be serious about supporting, in addition to their own *Diamond Back* and *Diamond Edge* hard disk utilities, the whole line of HiSoft products from Britain. I expect ORA to be with us for a long time; not only do they have a wide line of good products, but, as far as I know, Mr. Luneski, who runs the company, also has a steady job outside of the Atari market. This helps a lot.

The newest version of *HighSpeed Pascal* is 1.6. It has been significantly improved compared with the original, and an upgrade from earlier versions, even if purchased from other sources, is available for a very reasonable $10 (send in the original disks).

What has been improved since Ver 1.0? A lot. First of all, dozens of minor, but irritating, bugs have been fixed. Even more importantly, the 32K data object limit has been removed. Now if you want do declare a 1MB array, just go ahead, as long as you have enough RAM chips in your machine. The WORD and BYTE types have been implemented properly, and in-line assembly code can be mixed with Pascal almost at will.

Finally, some further improvements to the language standard have been introduced: absolute variable declarations (forcing a variable to be at a given memory location or overlaying another variable) and Turbo-compatible typed constants (it still puzzles me why Borland called them "constants"; they are just variables with initial values) of simple or structured types.

Some of my initial complaints still remain valid: the documentation is far from complete, with numerous gaps and errors (this is, to some extent, offset by a very good on-line help feature), the compiler shell, as cleaned-up as it is, still sets the default path of executed programs to its own (instead of that of the program being run) and, most painfully, procedural parameters to procedures (or, even better, procedural types) are still not implemented.

Trial by Fire

In order to check the usefulness of *HighSpeed Pascal* for serious programming, I decided to attempt no less than a port of my *El_Cal* from *Prospero* to *HighSpeed*. The program is quite large (the Prospero version is about 220k of code), and heavily uses the AES and VDI libraries, in addition to everything else.

First of all, the HighSpeed (or Turbo) extensions to Standard greatly simplify many tasks. For example, each library module (here called a unit) may contain a startup code, which will be automatically executed at the beginning of the program, and it is also possible to declare a procedure as *exit code*, executed when the program terminates (normally, or by execution error, it doesn't matter). I found it very useful: each library module may first set things up the way it needs them and then clean up upon program termination. All this without bothering the main program with technicalities. Neat.

Explicit type casting allows you to bypass the strict type checking when needed (still, making it clear in the program code), and absolute variable declarations allow for very easy implementation of variable-size arrays as parameters. For those more technically inclined, let me illustrate this with an example.

We want to write a library function for adding up a number of elements of a REAL array. Standard Pascal allows for this as long as we know ahead of time what the array size will be. This means that we would need one function to sum up a five-element array, another one for a six-element one etc., one of the most useless and irritating restrictions in the history of programming languages.

In *HighSpeed Pascal* the task is simple (see box). The word **ABSOLUTE** means "let the array x start at the same memory location where **xx** is. The latter is passed by reference (**VAR**) so that the taken address will be that of the origi-

```
FUNCTION Sum( VAR xx: REAL; n: INTEGER ): REAL;
VAR
  i: INTEGER;
  s: REAL;
  x: ARRAY [1..2] OF REAL ABSOLUTE xx;
BEGIN
  s := 0.0;
  FOR i := 1 TO n DO s := s+x[i];
  Sum := s;
  END;
```

nal, not of an internally created copy. In order to add up, say, the first 10 elements of an array **A**, we need to call

```
r := Sum(a[1],10);
```

These and other standard extensions made the project much easier. On the other hand, the lack of procedural parameters turned out to be a very painful limitation. Thanks to Mark O'Brian of Paradigm Software, I was able to use the in-line assembly to work around the problem. This required, however, writing a separate assembly procedure for every procedural type used (one for a procedure with a single integer parameter, one for a real function with two real ones, etc.). I ended up writing 18 of these, just to work around this problem.

Still, the progress was quite fast. The standard, DRI-style bindings for GEM AES and VDI functions work just fine, and I was able to discover just one bug in the compiler itself (it took me a day to identify it and a minute to work around). This is better than in most compilers I worked with.

The speed of the compile/link cycle is just amazing. The recompilation of the (huge) main program module and linking it with other modules and libraries, an eight-minute task under *Prospero*, takes about 20 seconds in *HighSpeed*!

Well, after ten days or so, I had the *HighSpeed* version of *El_Cal* up and running (although in need of a final cleanup). But here came a disappointment: the executable size, 220k under *Prospero*, has increased to more than 270k!

This was something totally unexpected. Two previous, smaller programs I ported between both language implementations, ended up with *HighSpeed* versions being significantly smaller, for example, from 60 down to 35k. I suspect the reason is that *El_Cal* uses the floating-point libraries while the other programs don't. Besides, the Prospero compilers are quite peculiar: very inefficient (as far as code size is concerned) for small programs and very efficient for large ones. Some other users report that their *HighSpeed Pascal* programs end up smaller than those compiled with *Personal Pascal*, a more than respectable result.

More Ups Than Downs

Let me make one thing clear. In the current version, *HighSpeed Pascal* is a very good product. I am very seriously considering it as my development environment of choice, in spite of a heavy investment in Prospero code. I am using it quite a lot at work (under Gemulator) for numerical and statistical computations. With the memory barriers removed in Version 1.6, it does things that *Turbo Pascal* under DOS can't do, even on an 8 MB machine. Quite interestingly, more than once I found myself using the same code under *HighSpeed* ***and*** *Turbo*, the former being capable of handling large arrays of data, the latter, thanks to the 50MHz speed and math co-processor of my DOS machine, crunching the numbers really fast.

Most users will not be handicapped by the lack of procedural parameters, and the programs produced by the compiler will usually be relatively small. On the other hand, the clean integrated environment and the compiler's speed make programming under *HighSpeed* a real pleasure.

At this stage of development, I can already recommend *HighSpeed Pascal* as the implementation of choice for the ST. If you are still using *Personal Pascal*, forget it; there is no contest. Even many (probably most) of the Prospero users will benefit from the switch. And if you are just looking for your first Pascal compiler, look no further. At $150 (street price) it's not cheap, but you will not regret the expense.

Gemulator Screen Drivers

Last month I reported receiving a beta version of high-resolution PC screen drivers for the Gemulator. Some of the screen modes were not compatible with my particular SVGA driver. As I expected, this is no longer a problem: the next update added my ITA driver to the list of supported ones and, currently, I am running my ST programs in resolutions up to 1024*762 pixels on a regular SVGA monitor. Screen redrawing in color is slow (it has to be!), but monochrome redraws are very satisfactory.

After the Gemulator review both the Purple Mountain Computers (Mr. Oscar Steele) and Brasoft (Mr. Darek Mihocka, The Incredible Emulator Man) contacted me with an explanation that, currently, the Gemulator software is no longer shareware, as it was with Version 1. The latest Version of the program (V2.11) is included in the package with the *total* price of $230 (the board, original Atari TOS ROMs and Darek's software).

Well, this makes the deal even better. After the last four months, I no longer can imagine my office (or my work) without the Gemulator, and I hope that truckloads of them will be sold.

By the way "Version 3" on the cover of the last issue was a glitch (contrary to what you may suspect from the quality of *Current Notes*, Joe is only human). Don't bug Darek for an upgrade, at least not yet.

Why Is Atari Still Alive?

My "other" personal computer is the pocket-sized HP95LX, a PC-DOS machine the size of the Atari Portfolio. Recently, I was able to compare the activity of the CompuServe HP95LX forum with that of the Atari Forum on GEnie. This gave me something to think about.

Both forums seem to have similar numbers of participants and visitors. The HP market may be somewhat larger: a hot program in the Atari library may reach 800 downloads in a couple of months, while in the HP area, even 1500.

A surprise comes when you compare the number of programs uploaded each month to both areas: here the ST beats the HP at least ten to one!

What this may mean is that the percentage of programmers among the ST users is vastly larger than among those who use the other machine.

A brief trip into some PC-DOS specific areas on GEnie seems to confirm this suspicion. Certainly, the PC does not enjoy a 100:1 advantage in spite of the fact that for every ST in this country there are maybe 100 PC-DOS machines (and the average quality of the DOS Public Domain programs is also far behind).

The high percentage of users actually programming their computers may help in explaining why Atari is doing so well (as a user community, that is). Well, at least for a brand with barely any computers to sell, and those few remaining being the eight-year old model. (Don't tell me about the STE as a great step up the evolutionary ladder: a PC XT from 1985 with a Soundblaster card does not make a 486/66 machine).

Any computer manufacturer with an IQ above 60 would understand that if this kind of support of their product goes away, then surviving leaner times (as between subsequent generations of their products) will become highly problematic. For a company in Atari's situation, amateur programmers, those thousands of people hacking away in their basements, should be worth their weight in RAM chips. Certainly worth the time it takes to upload a number of files with basic TOS programming information and maybe even devoting, say, two hours a week to answer some on-line questions, right?

Wrong! It may be true that, as people say, Atari has recently improved the support of the so-called "registered developers," i.e. those who pay the manufacturer the appropriate support fees and who, at least partly, make their living programming Atari computers. This is just fair, as the level of support needed by these programmers may require a considerable effort. But nothing is done to keep all the others, who bring us, every year, thousands (literally) of usable, useful, and sometimes excellent programs.

Walk into any bookstore and check the number of PC- or Mac-specific "how-to" books. After the initial wavelet of 1986/88, any ST books of this type become scarce and devoid of any newer (or deeper) information, just rehashing the contents of previously available positions. Sheldon Leemon's three volumes (published by *Compute!*, who long ago dumped Atari support) still remain the most complete effort in this field (with Tim Oren's on-line series addressing the AES and VDI questions more in-depth).

This is understandable: writing and publishing a book is a big investment, not justified by the size of our ST market (even with it's much higher *percentage* of programmers).

At least four professional-level programmers whom I know abandoned the Atari platform in favor of the MacIntosh. What one said reflects the feelings of others: "Yes, the ST is much nicer to program for, but on the Mac, I do not have to dig for any piece of information."

This is a free market and it is not up to me to tell Atari what they should be doing to improve their chances of survival. If they wish, they probably may charge a fee for the information on the amount of memory in the Falcon. I just wish someone would give some consideration to one of the factors that allowed them to stay around for so long against all reasonable odds.

Arrival of the Falcon–the Final Season

Our Falcon soap opera is going on, although the ending of the plot is still hard to predict. Ten days ago it was announced that the Big Bird was passing the US Customs (the first flock, at least). This morning I drove to my nearby Atari dealer, just to witness all phones ringing, with everyone and his mother inquiring about the availability of the Dream Machine. "No, we don't have any yet. No, we don't know when; any time soon."

I hope there will be a happy ending to this story, and soon—because this, indeed, may be the final season.

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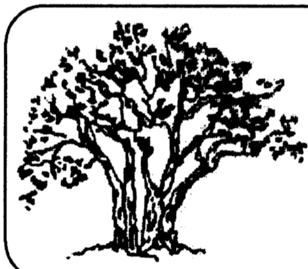

Woods Music

by

Gary Woods

MIDI on a Budget

One of my purposes for writing these articles is to get more people involved with Music through MIDI. To this end, I decided to write a column called MIDI on a Budget.

Keyboard

The first component of a studio is the interface between you and the computer. It is possible to use a MIDIed Guitar, Woodwind, or a Pitch to MIDI converter like the Roland CP-40, but most often this interface is a keyboard of some kind. There are two primary kinds of keyboard controllers, ones that makes sounds and ones that simply pass on MIDI data to other devices. For a controller, I prefer one that doesn't make sound. When you are inputting data, many sounds and textures begin to build up, and when you have a keyboard that is not only your interface but your primary sound source too, you will always hear the sound you are inputting and the sound that is selected on the keyboard. This gets very confusing.

Number of Keys. There are many different features that a keyboard controller can have. The first is the number of keys. Most synthesizers have a 5-octave keyboard, which means 60 keys. Now I know that the old spinet in the parlor has 88 keys, but 60 keys, or even fewer, are not a big hindrance in dealing with computer music. Shifting a pitch up or down one or more octaves is very simple with synthesizers. Instead of looking at that keyboard and saying this is Middle C, it can also be anywhere from four octaves below Middle C to four octaves above. The only drawback to a shorter keyboard is that you real pianists can't play those big complex chords that spread the whole length of the instrument. What you will find is that, with MIDI music, you will most often be dealing with smaller sections of the music rather than the entire arrangement simultaneously, and these smaller sections can fit quite nicely in five octaves or less. Besides, let's be honest, how many real two fisted piano players are there. I know I'm not, and I seem to be able to create perfectly lovely, intricate music.

Weighted Keys. The second big feature that some keyboards have is weighted keys. The difference here is between a piano keyboard and an organ keyboard. (I'll wait while you go check out the difference, ... all right time's up.) As you no doubt noticed, a piano has some resistance when you push down the key. There is a whole complex mechanism that strikes the string. On an organ, the key is simply a switch that activates either an electrical or mechanical device to generate the sound. Therefore, it is a lot more expensive to manufacture a keyboard with weighted (Piano) action as opposed to nonweighted (Organ) action. For a nonpiano player like myself, the unweighted action suits me just fine.

To make up for the lack of a weighted keyboard, part of the MIDI specification allows for the transmission of what is called Velocity Data. This feature means that you can hit a key harder or softer and have that information recorded and played back. Most modern synthesizers can respond to this data and, therefore, make the sounds change substantially, depending on how the note is struck. There are many other features that some controllers have such as

Aftertouch, Programmable Sliders, Footswitches, and on and on, but for our MIDI on a Budget these are going to be cost prohibitive.

Novation PC10. The keyboard I thought would be most appropriate for our studio would be the Novation PC10 (see illustration on page 17). It has two octaves, but is instantly transposable in realtime to over eight octaves. It is velocity sensitive and has both Pitch and Modulation Wheels, and can send Program Changes on all 16 MIDI Channels. It can run on batteries or from an AC Adaptor. I've talked to several professionals who are going to get this device to take into the studio, or for use while traveling when a full-sized keyboard would be impractical. At a list price of around $220 this could get our MIDI studio off and running.

Sequencer

Once we've sent the data to the computer, the next thing we have to do is capture it and manipulate it in some way. The software for this is called a sequencer. It is so called because, even though it may sound like the notes are being played at the same time, they are actually being played one after another, or sequentially. The three products that meet the criteria of MIDI on a Budget are *Edit Track Gold* by Barefoot Software Inc., *Tiger Cub* by Dr. T's Music Software, and *Cubase Lite* by Steinberg/Jones. All three are in the under $200 category and do basically the same things in slightly different ways.

Cubase Lite

My favorite of the bunch is *Cubase Lite* because of the way it is laid out and the ease of use. On booting up *Cubase Lite*, the first things you see are the 16 Tracks arranged up the left side of the screen. The Tracks are named Track 1, Track 2, etc., but can be renamed to reflect the name of the instrument, such as Flute or Trumpet. To the left of the Track Name there are two columns. The first is active if anything is being played from that track. When you have as many as 16 parts playing, it is very helpful to be able to quickly figure out which Track contains data. The next column is used to Mute a Track. This can be helpful if you have two or three different versions of the same part and want to switch back and forth to see which works most effectively.

To the right of the Track Name there is a column that shows the MIDI channel selected. The next column displays the desired Program, and the last contains the Volume level. This means that, with every song, all the Programs and Volumes can be stored; every time you call the song up, everything will be set for you to go back to work. Also, if you have a favorite group of instruments you like to work with, they can be stored as your DEFAULT Settings so you don't have to start from scratch each time. Once all these settings are made, they can be hidden from view, giving you more room to make music.

To the right of the setup windows is where the real action takes place. Information is recorded into Parts, which can be copied, cut, and pasted with the aid of the Edit Tools. By holding down the Right Mouse button, you can select from the Arrow, the Eraser, the Scissors, and the Glue Tube. The Arrow moves Parts around on the window, from Track to Track or forward and back on the same Track. The Eraser removes a Part. The Scissors cut the Part into two separate Parts, in case only one segment needs to be dealt with. The Glue Tube unites two Parts into one.

There is another editor, which displays the data in musical notation, and is called Score Edit. You can choose to show one Part or an entire Track. Or, you can display several Tracks like an entire orchestral score. Once inside the Score Editor, notes can be Transposed, or moved forward or back in the music. Also, music can be input by selecting the proper note value and clicking on the desired point in the staff.

A Quantization feature is particularly helpful for fumbled fingered pianists like me. This feature realigns what you play to the correct value that you really meant in the first place. You can choose values from a whole note to 64th note triplets, with each Part having its own value, if desired. This is where the Scissors could come in handy, because you might want one section to have a certain type of feeling, and another a completely different nuance. To go with this is a feature called Unquantize that allows you to return to ground zero before you applied the Quantization.

Across the bottom of the window are the buttons that control recording. On the left are the Left and Right Locators. All recording on *Cubase* is accomplished by first setting up where you want to record to and from with these Locators. Next to the Locators are the buttons for Solo and Cycle. Solo allows you to hear just one track at a time, while Cycle creates a loop between the two Locators. This feature is great when you have a complicated piece of music, because it repeats the section over and over again until you've played it properly.

In the center of the bottom section are the Transport Controls for the sequencer. Anyone who has worked a tape recorder should feel at home here. There are buttons for Play, Record, Fast Forward, Reverse, and Stop. To the right of the transport are windows for selecting the meter (2/4, 3/4, etc.), and tempo of the composition. Next to them are two Meters, which show when MIDI data is being Input and Output. The last box on the right activates an audible click from the speaker on your monitor.

The feature I like best about *Cubase Lite* is that everything can be accomplished while the music is playing. Parts can be Moved, Copied and Quantized--all without stopping and starting. Traditionally, any editing had to be accomplished while stopped, causing the music making process to be disjunct, but with *Cubase Lite*, everything, including Saving the Song to disk, can be accomplished on the fly.

At a retail price of $150, and with most stores discounting it to around $120, this represents a substantial value for a very musical piece of software.

Making Sounds

Okay, we've got our keyboard, and our sequencer, and we're still below $400. Not bad. Now, what are we going to get to make the sounds? Probably the best thing to do is look at the General MIDI gear that is coming out now. For those of you not familiar with General MIDI, some of the parameters are:

1. All Voices respond to Velocity,
2. The Module responds to all 16 MIDI channels,
3. Sounds are stored in a specific order,
4. Each channel responds to Continuous Controllers 1 (Mod Wheel), 7 (Volume), 10 (Pan), 11 (Expression), 64 (Sustain), 121 (Reset All Controllers), and 123 (All Notes Off).

If you think by using gear aimed at the "Consumer" rather than the "Pro" your studio is going to sound like the dreck you hear coming out of the Muzak at the Mall, you've got another think coming. I was at a Stevie Wonder concert recently and the primary sound source he was using that evening was the Roland Sound Canvas.

Roland Sound Canvas. Due to the popularity of the Sound Canvas, Roland has now released three different versions, they are the SC-155 at $895, the SC-55 at $795, and the SC-7 at $395. Since we're dealing with MIDI on a Budget, we'll talk primarily about the SC-7 (see illustration). As it so happens the SC-7 is designed primarily for use with a computer. It doesn't have the front-panel display and controls of the SC-55 and SC-15, and there are fewer waveforms on board. The sounds it does have, however, are basically identical to the other units. There are six drum kits instead of nine, but the drums included are a collection of their best. Some of the drums are from the R-8 and TR-808 with the classic 808 kick, snare, toms, and cowbell. As far as effects are concerned, there are eight types of reverb and chorus, and each sound can have a different level providing a wide range of sound possibilities.

Yamaha TG-100. The other instrument that fits into our budget is the Yamaha TG-100 (see illustration), which retails for $449. The unit has 28 note polyphony and includes 192 voices. It has 10 drum kits, with sounds ranging from rock to jazz to symphonic. Also, there are a full compliment of Latin percussion instruments along with a very good timpani and concert cymbals. There are three reverbs offered, which include "Hall," "Room," and "Plate." Also, there are two delays, with two settings for each effect provided. On the front panel, they have provided an Audio In jack which can be used to mix in an external sound source, like a CD or even a microphone, which would allow you to sing along with your songs while accessing the Reverbs and Delays.

Songs

So, what are you going to play on your new MIDI studio? Well, if the muse fails you, there are companies that provide already arranged and orchestrated selections. For $15 each, Tran Tracks has hundreds of pieces available from "1-2-3" by the Miami Sound Machine to "You've Lost That Loving Feeling" by the Righteous Brothers. On the Classical front, Romeo Music International has music from Bach to Wagner ready to play at the drop of a MIDI file.

So there you have it; for well under $800 you can have a MIDI studio that sounds great and is easy to use.

As always, if you have any questions or suggestions for columns please contact me at:

Gary Woods, 6428 Valmont St., Tujunga, CA 91042.
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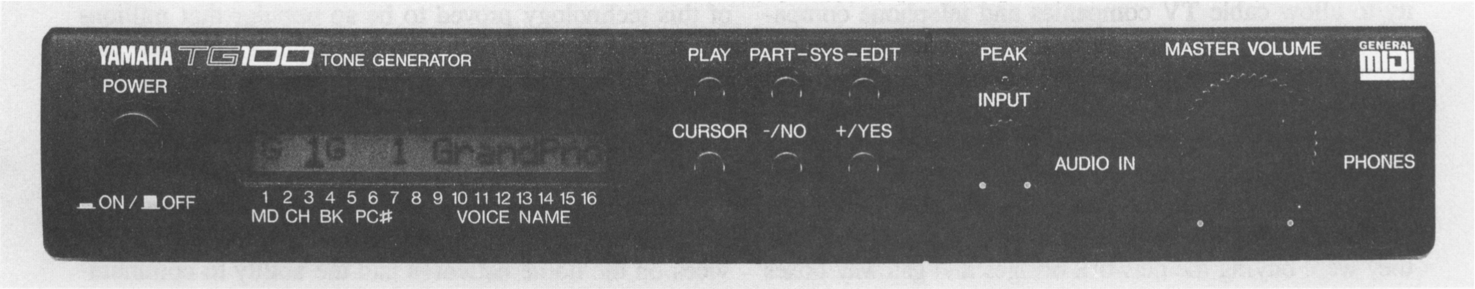
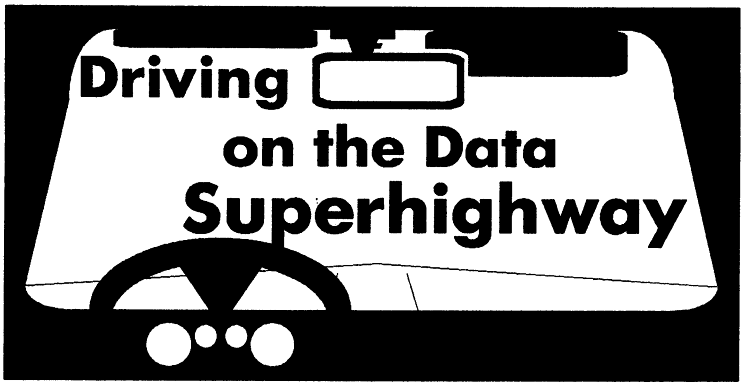


The Junkyard Pussycat

by John Barnes

The time is the near future. The Junkyard Pussycat pops into his computer room after dinner and checks out the day's activity on his local terminal. A couple of e-mail messages have arrived during the day, last night's downloads have produced some nice image files from the latest exhibit at the National Gallery East Wing, and a couple of FAXes have been dropped onto his hard drive.



Driving on the Data Superhighway

The InterNet Comes Home

All of that stuff was possible in 1993, but the Pussycat would have had to tie up a phone line with his computer and the downloads would have consumed hours of connect time on America Online or some other commercial service.

In the here and now of the near future, all of these items come and go through a small box that is little more than an InterNet gateway that connects to the wall jack for the cable TV service. Image downloads can be done interactively because they only take a few seconds. E-mail messages are routed right to the Pussycat's machine because his correspondents are wired into the Internet in the same way.

The Miracle of Fiber Optics

The thing that made all of this possible was President Gore's push for a National Data Superhighway while he was vice-president under his predecessor. Government contracts to produce fiber optic cable as a replacement for the welter of technologies that had been used in the old Internet created the manufacturing capacity to allow cable TV companies and telephone companies to obtain fiber-optic cable cheaply enough to allow them to rewire their networks down to the neighborhood level.

The telephone companies and the cable companies had tried different slants on the technology in a number of pilot-scale operations, but eventually they found that they were using the same switching technology and that they were buying the network bridges and gateway boxes from the same suppliers. The real killer was the unnecessary duplication of the neighborhood network routers. It was expensive to build and maintain these, and the companies found that the clever little robot moles they used to lay the cables were constantly undoing each others' handiwork.

In some places, the cable TV companies bought out the phone companies and in other places the phone companies bought out the cable TV companies. The upshot was a bunch of little local information monopolies. This had been foreseen when the government put caps on the charges that the phone/TV cable providers could levy for their services, while simultaneously providing tax relief for the capital spending that was needed to rewire.

On-demand TV and dozens of home shopping choices had proved to be a bust because there simply were not enough people willing to pay the going rate for these things when they could do their own schedule shifting with the new generation of smart VCR machines.

Even with greatly expanded niche offerings to TV viewers, the cable/phone networks still had lots of extra carrying capacity.

Household Ethernet

Scientists and engineers at Los Alamos National Labs, who had previously been engaged in a vast public works project producing weapons that were useless for anything but frightening enemies who no longer had the capacity to use their own weapons, were told that they had a choice of going on welfare or working on consumer hardware for the Information Age.

A couple of the brighter ones of these decided that Digital Signal Processing chips would to be a cheap and tidy way to implement Ethernet protocols on boards that could plug into the expansion slots in millions of existing home computers. Another group found a cheap way to make Internet routers that could convert a cable TV wall jack into a two-way interface to the cable/phone network.

With a vastly expanded market, the plug-in networking boards fell to the price of cheap modems (which were basically obsolete anyway). The 10Base-T version of this technology proved to be so popular that millions of Harry Homeowners started running twisted pair LANS throughout their houses. Soon, all kinds of consumer gadgets—TVs, VCR's, videodisc players, CD players, even telephones and intercoms had Ethernet capability.

Luckily, the designers of the little gateway boxes had foreseen this and had fixed it so that only the smarter devices on the home networks had the ability to communicate with the outside world. Besides computers, these were mainly TV sets and VCRs, which could use this communications capability to order up the things their owners wanted to watch. Those who had not gotten into the computer side of the thing could at least use their remote controls to operate the service menus and participate in the electronic town meetings.

Meanwhile...

Back at the Pussycat's computer room we find him telling his built-in Gopher server to prowl the network for electronic journal articles that he had been too busy to access during the day. While the computer was churning away at this task, the Pussycat ordered up a couple of long-term histories on some investments that he was interested in as possible replacements for his IRAs that had not been performing up to snuff lately.

One of the e-mail messages had told him that he could order an update to the operating system for his main file server. A simple reply to the mailgram was enough to schedule the download for the wee hours of the morning, after the nightly backups to his archival read/write optical drive.

The Pussycat's wife came in complaining that she had been having a problem with the software that downloaded images of fabric samples from the interior decorator's catalog. It turned out that the living room couch dimensions were not in the database for the 3-D rendering program that was supposed to upholster the couch. The Pussycat promised to set up the camcorder so that they could get a couple of pictures to send off to the decorator's shop for conversion to a CAD file.

The Pussycat saw that there was no way he could watch his favorite TV show at the regularly scheduled time, so he brought up the VCR control panel and told the machine what to record. The VCR told him that it was already scheduled to record the same show for his wife and that he needn't bother.

Sooner Than You Think

The Pussycat's musings about the future are not in the least farfetched. Much of the groundwork has already been laid. The basic communications protocols and the software to use them are already in place. The special hardware for the phone/cable company and the home are minor takeoffs on things that already exist.

Journal pollution is already a fact of life that conventional libraries cannot cope with. Anyone who has lugged home bundles of fabric swatches knows how much nicer it would be to just have several of these on a properly indexed CD ROM. The cost to the fabric producers must be formidable as well. Tools capable of creating something as simple as a living room in virtual reality already exist. Millions of users each day are able to access services like these from their labs and offices over the Internet. Image files flow from archives to workstations in well under a minute, as do large applications. Search tools can roam the entire world in the blink of an eye. The user can have as many terminal sessions as he likes open simultaneously. Files on distant hosts seem to be right on the user's desktop. A simple point-click-drag suffices to suck data in from across the world.

As *Time* magazine pointed out in its April 9th issue, bringing the internet into the home is simply a matter of travelling the "last mile." The scenarios they laid out and the rationale behind them are eminently sensible.

If, however, the data superhighways of the Information Age simply bring more of the same junk food for the mind that already flows in over the TV cable, the Pussycat will find other ways to use his time. If the new data superhighways are to live up to the promises of the politicians, they must provide real empowerment. The nation already has enough ways to amuse the indolent and pacify the ignorant.

The User Interface

Much of the traffic on the 2-lane data highway of 1993 (which actually uses 1970s technology) is controlled by people who sit at Unix workstations. The tools are something only a determined Unix geek could love.

Honest professionals have been working on this problem for quite a while now. The Open Systems that are the product of this effort are beginning to flow into the commercial marketplace. It is a safe bet that the Babel of environments—DOS, X-Windows, Microsoft Windows, Unix, NFS, Novell, System 7, and a whole alphabet soup of others will converge to something that has a nearly universal "look and feel."

The Machines

Multitasking is a key to this evolution, which is probably the reason that Unix is so popular. Computers that network simply must be able to walk and chew gum at the same time.

The trend in computing hardware is toward systems that can run a variety of operating systems. The new DEC Alpha platform claims to be able to run almost anything. Even the folks at Apple seem to have a Mac operating system running on a 486. With the partnership between Apple and IBM we can expect to see much more movement in this direction.

Current personal computers do not do enough distributed processing. The Pussycat has always wondered why disk drive manufacturers have lost the knack that they once had for making their products unobtrusive to the CPU. Graphics is another area that sometimes chews up a lot of CPU cycles unnecessarily, although there are plenty of products that help out in this area.

Such distributed processing is commonplace in the workstation world and it simply seems to be a matter of time and consumer demand before it appears at the personal computer level.

Once home machines are capable of true multitasking, it will be much easier to hook them into networks and the painful inadequacies of the current generation of consumer information services will become glaringly apparent.

The Content

Existing information services, operating largely at 2400 baud, offer very meager fare indeed. The so-called "encyclopedias" that they offer do not provide enough to satisfy anyone who is halfway curious about a subject. The bulletin-board aspect of the message threads is truly annoying to anyone who is in search of real facts. The tedium of downloading from the libraries is often not worth the connect charges.

It seems that the problem is centralization. The big services are using file storage hardware and processing technology that has its roots in the Dark Ages of mainframe computing. Data and requests must flow through narrow pipelines constrained by today's telephone network.

Today's Internet is quite costly to run. Only subsidized learning centers, government laboratories, or rich corporations can afford to carry the costs as part of their overhead. The large services do provide Internet access, but they charge an arm and a leg for it, effectively limiting participation to electronic mail and minor file transfers.

The economies of scale and reduced charges for message transmittal that the new data superhighways will make possible should bring the cost of participating in the full exchange of information well within the range of homes and small businesses. As *Time* points out, the new data superhighways will undoubtedly have toll booth operators. Given the huge capacity of the fiber-optic networks it should, however, be possible to keep the tolls for modest amounts of traffic reasonable.

The task of coming up with fair charges for the services should be much easier than providing adequate health care for everyone.

Where Is Atari in All of This?

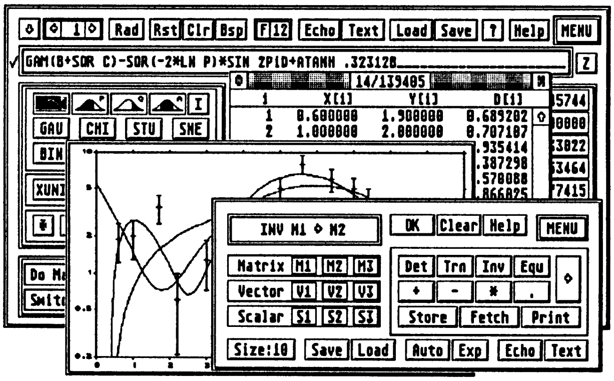
Regretfully, the Junkyard Pussycat's nieces and nephews have already outgrown the kind of game playing that is possible on his Atari machines and no one likes the funky productivity software that resides on the disk drive.

By the time the future rolls around, the Pussycat suspects that even the machines that he donates to charitable causes will have been declared surplus and consigned to landfills. There will be no way to upgrade them to handle the networking needs of the real Information Age.

The one Atari computer that remains in the Pussycat's computer room of the future is there in case he ever needs to dig up old records for the Internal Revenue Service, and he hopes that he can get all of these converted before his disk drives breathe their last.

El Cal

The Math Machine.

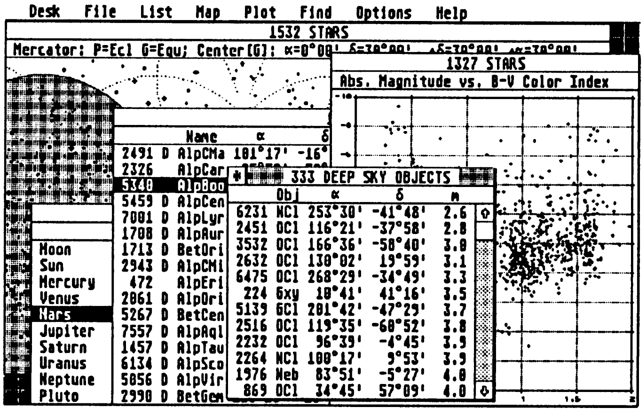


From senior high to Fermilab - if you do any engineering or scientific calculations, then you need this program.

* Numerical integration, differentiation * Systems of linear, non-linear and differential equations * Vector and matrix operations * Function optimization * Mean, standard deviation * Function and data plots * Linear regression, correlation * Polynomial least squares * Multi-parameter point and histogram fits * Unit conversion * Roots of square, cubic, quartic equations

⇨ The new Version 2.2 has upgraded graphic capabilities. **$63.**

Star Base



* 9000+ brightest stars * 300 deep sky objects * Planets, comets, Sun and Moon * Various projections, reference frames and map ranges * Mapping, browsing and database manipulation * Object search, selection and identification * Hertzsprung-Russel diagram

⇨ The new Version 1.2 adds planet path plotting and more. **$43.**

Min Cal

El Cal's little brother: a scientific calculator accessory, with the same expression parser and the most powerful function set on the market (95 total). **$15.**

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An extra data base with 40,000+ stars and 4,000 deep sky objects. For **Star Base 1.1** or higher. Hard drive recommended. **$22.**

All programs run on any Atari ST, Mega, STE or TT, color or monochrome. All need 1 MByte of RAM.
Prices as shown include shipping. When ordering two products, deduct $6, and $4 for each next. Outside continental US please add $5.
Updates: first one free, then $5 each. Upgrades to El Cal 2.2 from 1.xx: $20

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CompuServe ST

STaying in Touch
by Michael D. Mortilla

Who's On First?

This time out, we're going to get a little more up close and personal (in your screen?) about the folks in the Atari forums on CompuServe (CIS). We'll discuss the vendors who frequent the forums, the SYSOPs who run them and maybe even get to a personality. Finally, we'll talk a little about impromptu and formal conferences.

Batter Up!

As in many businesses, clubs, users groups and other organizations, there are a lot of individuals who contribute to the health and prosperity of the group. But, it is also true that there is usually a smaller core of people who take the actual responsibility for the day-to-day operations and special concerns, as well as decide policy and other non-democratic issues.

While it is usually the System Operators (SYSOPs) who do a lot of this work, there is one person who *really* runs things (i.e. his word is usually final) and that is Ron Luks. Ron was there at the inception of the Atari forums on CompuServe and is a major force in their operation. He is the one who selects the SYSOPs, and is the official contact between us (the forums members) and CompuServe (at least where the Atari forums are concerned).

One of the things I like about Ron is that you can disagree with him and still get his respect. He keeps an open mind on forum operations and takes personal responsibility for even the simplest problems. He knows all the ins and outs at CompuServe and stands ready to do battle on our behalf. For example, if you log on and it takes a while to access the forum (which doesn't happen often and is happening less and less), just drop Ron a message and he'll "jump all over" those who control the traffic on CompuServe. Really!

In a way, you might call Ron the SYSOP's SYSOP, and if you ever have a problem with anyone (including a SYSOP), then Ron is the one to talk to.

I Don't Know... No, He's on Second!

Don't know? Ask a SYSOP. The SYSOPs in the Atari forums, and in most, if not all, CIS forums are knowledgeable professionals who can field questions on a wide array of topics. The current roster of SYSOPs in the Atari forums is as follows:

SYSOP*Ron Luks	76703,254
SYSOP*Mike Schoenbach	76703,4363
SYSOP*Dan Rhea	76703,4364
SYSOP*Bill Aycock	76703,4061
SYSOP*Keith Joins	76702,375
SYSOP*Bob Retelle	76702,1466
SYSOP*David Ramsden	76703,4224
SYSOP*John Davis	76711,127
SYSOP*Don LeBow	76704,41
SYSOP*Bob Puff	76702,1076

Now I know there are a few more that are not listed here, but these are the ones that appear "officially" in the forum. To get the most up to date list, simply select item 5 (ANNOUNCEMENTS from SYSOP) from the Forum Menu and then select item 7 (Sysop Roster).

And Now, a Word from Our Sponsor

Yes, CIS is also about business and a darn good thing, too! The Atari Vendors Forum is a place where you can find a goodly number of commercial developers ready, willing and able to field a few of your questions and, perhaps, pitch a few of their fine products. It's not unusual to see program updates in the libraries of this area. Frequently, updates are in the form of "ZAP" programs. What these do is modify your copy of the original program to bring you up to date on the latest developments. No more waiting for the mail or worrying that the dog will get your update disk before you do. It's all done online and quickly.

There are also many shareware and freeware enhancements for these commercial programs such as special fonts, customized documents for word processors and DTP programs, as well as things like screen saver modules, modem protocol updates and lots of other stuff. The current list of vendors is as follows:

CodeHead Tech.
DMC Publishing
Double Click
ICD, Inc.
Intersect Software
Gadgets By Small
Gribnif Software
Lexicor Software
MacDonald Assoc.
MaxwellCPU
Michtron
OXXI/Precision
Soft-Logik Pub'ing
Supra Corp.

Again, there *are* other vendors on CompuServe who are Atari specific, but who are not listed here "officially." One example is Barefoot Software, who have their own area in the MIDI Vendor (A) Forum. By the way, we will be reviewing Barefoot's latest upgrade to SmpteTrack/EditTrack in the next issue of *Current Notes*!

It Happens Every Spring (and Summer and Winter and Fall)

Now, let's say you are in the Atari Arts Forum (GO ATARIARTS). Maybe you're checking out a MIDI standard file to playback or you just finished downloading a new picture viewer, and you want to know who else is hanging around. So at a command prompt you type USERS. If nobody is there, you'll see your name and ID#, but chances are that you'll be presented with a list that looks something like this:

```
User  User ID      Nod  Area   Name
 1    75300,1642   NWK  Mes    ZNET Online
 2    72401,1765   SBR  Forum  Michael D. Mortilla
 3    76703,254    TLH  Lib    SYSOP*Ron Luks
 4    70761,3015   PNI  Mes    SYSOP*Jeff Kovach
```

The first number is the job # (user column). This identifies the current users in a simpler way than their full ID number. Now if you want to send someone a message, type: sen x (your message here). For example, let's say I'm in the forum and I notice that Ron Luks is there as user 3. I would type:

```
sen 3 Hi Ron, How's the weather in FL today?
```

As soon as I press return, the message flashes on Ron's screen in Florida, over 3,000 miles away, usually accompanied by a bell sound (depending on your communications program and whether your monitor volume is up). Ron's screen would look something like this:

```
;;[2] Michael D. Mortilla-Hi Ron, How's the weather in FL today?
```

Then, after he has time to digest the information and formulate a response, I'll hear a little bell and see this:

```
;;[3] SYSOP*Ron Luks-We've got 6 inches of snow!!!
```

That means Ron has answered me. He did the same thing I did but typed:

```
sen 2 We've got 6 inches of snow!!!
```

(followed by hitting return, of course).

Now he and I could go on like this for as long as we wished, but let's say that we typed **/users** and saw that Joe Waters had subsequently entered the forum as user 5. Now I could send to Joe and Ron separately, and they could send to me separately, but the three of us couldn't talk about the same thing at the same time without repeating every message to all parties. So what's a person to do?

And the Manager is on the Mound with the Pitcher and Catcher

If we tell each other to go into a conference room, we can just type without the sen commands and everyone can see and respond to the messages. To get there, type co (for conference) and you are presented with a three–option menu (see figure).

We could go into the empty room, but for fun, we select Room 1 and break in on Pattie and Boris. They are discussing the latest word on the Falcon 030 and don't seem to mind that we are now one, big happy user group! We kick around a few rumors, maybe tell a few clean jokes (remember, there's a lady present!) and maybe exchange recipes for borscht, pesto and hot dogs with chili peppers! When we feel we've had enough and need to bolt to the nearest hamburger joint, we type: /exit and we're back in the regular forum mode. We could also type: /off from within the conference and finish the session from there (the quicker I get my burger, the happier I am).

```
Atari ST Arts Forum CO Rooms Menu

Conference Rooms Available (# users):
 1 Public #1  (2)
 2 Public #2  (0)
 3 Formal Conferences  (0)

Enter choice !
```

Bases Loaded, Bottom of the Ninth, the Three-Two Pitch...

Any time you are in a forum, you can type: **co** and be presented with a conference menu. If anyone is in there, you'll see that reflected. If not, it'll say that too, so you are never in the dark. Now that's not all there is to conferencing. There are weekly conferences for all members and guests. The official word (available online at all times) is below:

Community Gab Conference - Find out what's new in the Atari world and talk with other Forum members. Thursdays at 10:00 PM Eastern time in the Atari Arts Forum (GO ATARIARTS). This conference is hosted by Forum members Bill and Pattie Rayl.

Portfolio Conference - Share tips on using the Portfolio and get your questions answered. Thursdays at 9:00 PM Eastern time in the Atari Productivity Forum (GO ATARIPRO). This conference is hosted by SYSOP*John Knight.

Programmers/Technical Conference - Fridays at 10:00 PM Eastern time in the Atari Productivity Forum (GO ATARIPRO). This conference is hosted by SYSOP*David Ramsden.

This Forum's conference area offers three rooms: Two public rooms, which can be used at any time by members, and the third is a "Formal Conference" room which is reserved for special moderated conferences. Please see the individual conference room descriptions (by entering the DES command at the main Forum menu command prompt) for more information on each conference room. Impromptu conferences are welcome at all times. Just SENd to a friend and have them meet you in either Public Room #1 or Room #2.

Commands to remember:

/NAME - Allows you to set/shorten the name you use in conference.
/ROOM #- Allows you to change conference rooms.
/USERS - View the list of users in the conference area.
/EXIT - Exit the conference area.
/HELP - Obtain a complete list of conference commands.

Keep your text lines as short as possible (no more than 80 characters is recommended). End your lines with a "..." to indicate that you will be continuing your statement with the next line. End your line with a single period or a "GA" (GO AHEAD) to indicate you are done.

Just log on and go into the appropriate Atari Forum and type: co and you'll be in on the fun! From time to time there are even little mini-festivals where you can win prizes, subscriptions and maybe even an Atari Portfolio palmtop computer. Watch the forum announcements for when these take place.

If there is a really big formal conference, you may be asked to download a text file so that you can navigate around the conference and maybe ask a question of the guest. Conferencing is really a lot of fun and you get a much better sense of the people on the service when you talk to them in real time. And don't worry if you forget all the conference commands. Just type: /? or /help and you'll see this:

```
Conferencing
All conferencing commands must precede with a slash ("/") and be en-
tered on a line by itself.  It is sometimes useful to press CONTROL-U be-
fore entering a conference command to make sure that the command will
be entered at the start of a new line.
More information is available for:
 ROOM       MONIT     UNMON     INVITE    JOIN
 NOINVITE   BREAK     PAGE      NOPAGE    UID
 NOUID      STATUS    WHO       DAY       JOB
 USERS      NAME      SQUELCH   SEND      NOSEND
 NOECHO     ECHO      EXIT      ROLL      Control_keys
Enter HELP selection
or <CR> to continue:
```

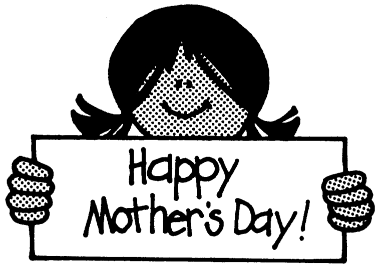
If we typed in: Control_Keys, we would see this:

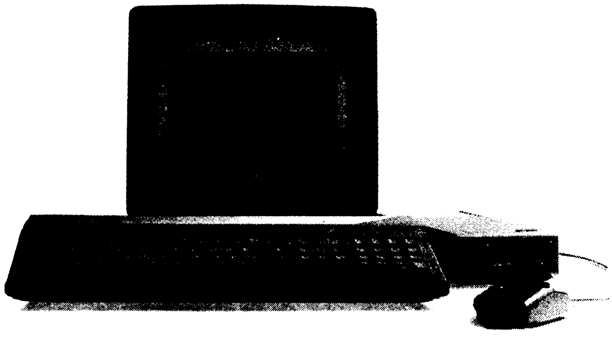
```
Conferencing
Control_keys
Pressing CONTROL-V (Control and V keys together simultaneously) will re-
display the line you are currently typing but have not yet transmitted.
Pressing CONTROL-U (Control and U keys together simultaneously) will
erase the line you are currently typing but have not yet transmitted.
Enter HELP selection
or <CR> to continue:
```

What could be easier? Well, lots of things could be easier, but maybe not as much fun!

That's the scoop on "real time" discussions in the Atari Forums and elsewhere on CIS. Next time, we'll discuss reading and leaving messages and who know's what else? Have a suggestion? Let's chat next time we're both online! Until then, don't do anything I wouldn't do, but if you do, don't forget to tell me about it. Online!

Ciao! <g>





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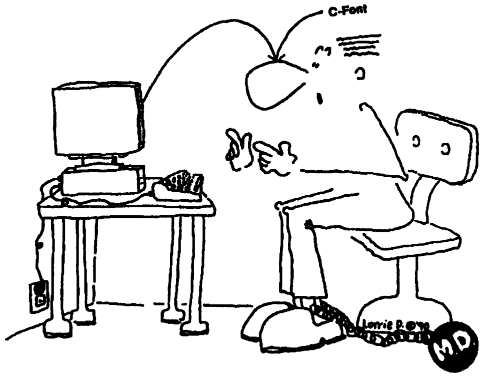
CompuServe®

C-Font

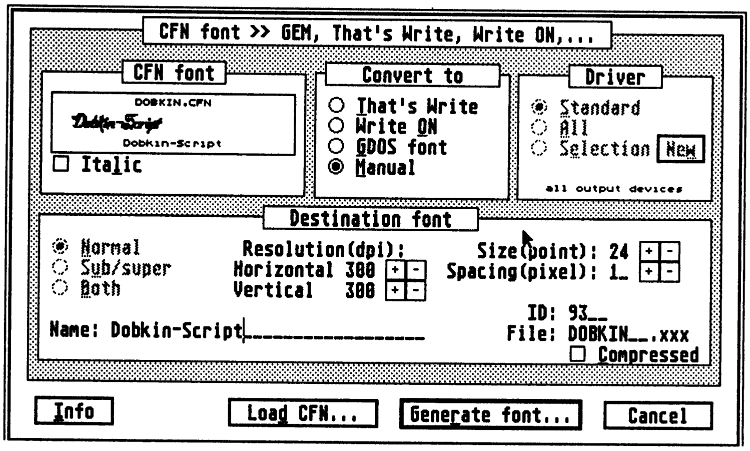
If You Are a GDOS User, This Is a Must Have

by P. Raymore



Let's face it, *Timeworks Publisher ST* is out of date. ***Not***. In spite of all the fancy new desktop publishers out there (that can print at one zillion dots per inch, shine your shoes, and leap mountains in a single bound) I find *Publisher ST* to be one of the most productive pieces of software that I own. It gets the job done, and fast, with reasonable results. Is it perfect? Not by a long shot. One of its major short comings is the inability to add GDOS fonts. Ha, but you can. More about this later.

While we are on the subject of GDOS, have you noticed the paucity of fonts available for GDOS? Not much variety either. This is probably due to two reasons. One is that there must be a file for each point size and each device, e.g. screen, laser printer, etc. This not only leads to major clutter, but takes up space, as any GDOS fan will tell you. The other reason is it has not always been easy to install GDOS fonts into a given program. My first attempts long, long ago and far away led to colorful expletives followed by fits of violence (temper,temper). This brings me to the subject at hand.



CFN font >> GEM, That's Write, Write ON,...

CFN font: DOBKIN.CFN, Dobkin-Script
☐ Italic

Convert to:
○ That's Write
○ Write ON
○ GDOS font
● Manual

Driver:
● Standard
○ All
○ Selection
all output devices

Destination font:
● Normal
○ Sub/super
○ Both

Resolution(dpi):
Horizontal 300
Vertical 300

Size(point): 24
Spacing(pixel): 1_

ID: 93__
Name: Dobkin-Script
File: DOBKIN__.xxx
☐ Compressed

C-Font is a relatively small program for creating GDOS fonts from *Calamus* fonts (.CFN). Yes, I have always envied *Calamus* fonts. There are plenty of public domain fonts to choose from and some are beautiful. This little program is sure to be popular among GDOS fans. In short, here is how it works. After you load the program, you are faced with a point and click mouse driven interface (see Figure 1). You load a *Calamus* font into the program. *C-Font* then allows you to create any point size (up to 99), in any resolution, and with any internal ID number (up to 9999). It takes less than a minute to generate even large point sizes–assuming you have a hard drive. Remember, bit mapped GDOS fonts are hungry "little!" space occupying files.

A Few Details: Just after importation of a *Calamus* file, the *C-font* program displays the name and a facsimile of the font in the upper left hand corner reassuring the user that he has loaded the correct font. In order to generate fonts (in the GDOS mode), you must have GDOS running with a valid assign.sys file.

In addition to generating GDOS fonts, *C-Fonts* will also generate fonts for use with *Write On* and *That's Write*, two word processing programs by the same author. *C-Font* also gives you the opportunity to scan for different devices connected to the computer. I find it easier to just input the point size and given resolution of the device the font is intended for. The authors were kind enough to suggest resolution settings for the majority of different devices that are regularly connected to the ST.

Other useful features include pixel spacing, which determines how compact your lettering will look. One tour de force feature of *C-Font* is the ability to produce compressed GDOS font files (GSTF compression standard). The larger your point size the greater your space savings. On a 24-point size font file, this means 61K, uncompressed vs 12K, compressed. The bad news is that these compressed files can only be used by certain programs so far–*Write On, That's Write, FontKit Plus 3.4*, and *Publisher ST 2*. Also, the file cannot be imported into *Fontz!*, a widely used font editor.

Now I have not mentioned many other features, but during use of the program, it performed flawlessly, not crashing once on my system–a Mega 4 ST. The program comes with a 12-page manual that is clear and easy to read. Yes, they could have added a few very useful options, like limiting the conversion to exclude all of those funny looking foreign characters. As it stands, it is a solid piece of programing.

abcdefghijk

Fig. 2. GDOS Font Printed in Publisher ST 2.

abcdefghijk

Fig. 3. Vector Font Printed in Calamus.

abcdefghijk

Fig. 4. GDOS Font Printed in Publisher ST 2.

abcdefghijk

Fig. 5. Vector Font Printed in Calamus.

All is not well in GDOS font land, however. After installing some of my newly created GDOS fonts into *Publisher ST 1* and *2*, I noted an irregularity of spacing (kerning) between characters, both on the screen and in print, with certain fonts. A little investigative work with the font editor *Fontz!* quickly revealed that the irregularity was not the fault of *Publisher ST* but was inherent in the GDOS fonts themselves. Each GDOS letter is contained in its own "block" of space. When printed by a device, this block of space is never made to overlap with an adjacent block of space. This works well in fonts where each letter neatly occupies a uniform block, but performs poorly in script-type fonts where the blocks are supposed to overlap. This Kerning problem is demonstrated when a script font is printed with *Publisher ST* (figure 2) vs *Calamus* (figure 3). Fonts that are not script in form are not significantly affected by this problem as demonstrated in fig.4 and fig.5. Again, this is not the fault of *C-Font* or of *Publisher ST*, but clearly demonstrates the limitations of GDOS fonts. With the aid of a font editor, minor patches can be applied but the majority of script fonts (my favorite) will be largely unusable. By the way, *Timeworks Publisher for Windows* (IBM PC) has no such problem because it uses vector fonts.

For those patient souls who will be generating fonts for *Publisher ST* and *Publisher ST 2*, here are some hints from one who has been raked over the coals of experience. My first recommendation is that you take your valium. My second is that you read the article by J. Andrzej Wrotniak in the February issue of *Current Notes*, "Don't be afraid of GDOS." This excellent article will not only give you a working knowledge of GDOS but will save you significantly amounts on your psychiatric bills.

Next, always back up (save) your old assign.sys file. Modify your assign.sys file with the same care you would use if disarming a nuclear weapon. Leaving out a period can be significant (fatal!). It is best if you add one font at a time, in one point size, especially if it is your first time around. This way if any thing goes wrong it is easier to back track and debug.

When giving ID numbers to your fonts via *C-Font*, use an ID number between 91 and 126 for *Publisher ST 1*, and between 153 and 4095 for *Publisher ST 2*. This way you will not have an ID number that conflicts with any already present in the *Publishers*. In *Publisher ST 1*, try to list your fonts within the assign.sys file in ascending ID numbers. This is not a problem if you follow my ID numbering scheme since you can just add the new font to the bottom of the stack. (There is a stack for screen and another for printer fonts in the assign.sys file).

If you have a font editor such as *Fontz!*, you may want to delete any characters beyond the character #127. It deprives you of all those funny looking foreign characters but substantially reduces font file sizes. So what, you may ask? Well, smaller files speed the loading of your *Publisher* and save on computer memory space.

If you are adding more than one font to *Publisher 1*, you may have to delete some fonts already present. Do not delete the Swiss or Dingbat fonts. The program appears to be hooked into these fonts in an intimate way.

I do not want to be a total pessimist, but if things go well the first time around, count yourself among the blessed on mother earth. Once you have made your first successful modification or font installation, it becomes surprisingly easy. I always write down the steps that lead to a successful modification since my head (alzheimers) bothers me at the most inconvenient moment. Good luck.

The Cookbook Method of Adding Fonts to Your *Publisher 1* and *2:*

(1) Generate your font, specifying point size, resolution, and internal ID# with C–Font. You need one for the screen and one for the printer.

(2) Change the font's name using the convention used in your particular Timeworks Publisher.

(3) Transfer the fonts to the GEMSYS folder.

(4) Go get your word processor, load your Assign.sys file, and modify it by putting the new screen font(s) name(s) under screen fonts and the new printer font(s) name(s) under the printer fonts. Remember to save the assign.sys as an ASCII file.

(5) Replace the old assign.sys file with the new. You may want to just rename the old file. For example, rename assign.sys to assign.bak.

(6) Reboot your computer.

(7) Run the FONTWID.APP program that comes with your Publisher.

(8) Now run your Publisher. (If you are a G+Plus user with Publisher 2, then you may have to do a few more simple things contained in the "read me" file on the G+Plus disk before this last step.)

The Weird Computer World

(C) 1993 David C. Troy

Doing Stuff

I regret that I didn't have the time to write my column last month. Jennifer and I went to Denver for a few days to visit her sister Beverly and to see Dave Small. It's rather unusual, but Beverly is the manager of the Gap store in the town where Dave Small lives. We didn't plan this, honest. Bev just said she was moving to Denver and the next thing we knew she was working in Littleton. It's a small world, ain't it?

So anyway, I went skiing for the first time in my life and nearly broke my legs. (Those mountains in Colorado are really tall and steep! There should be a surgeon general's warning placed on the map, just to the west of Denver.) And, oh, that 12,000 feet elevation–that really makes you feel energetic, too. There's nothing like hitting the ground at 120 mph, having your skis fall off, and having too little oxygen to be able to get up.

Dave took Jenn and me out in the woods where we shot machine guns at hard drives, phone books, and a lovely Picasso coffee table book. (I've always sort of thought that the cubists desecrated art, anyway.) So that was fun.

Yeah, we drove off into the mountains in Dave's Cherokee, armed with an M-16, a silenced MAC 11, some Pringles and some diet 7-Up. For targets, we had one of these 20 pounder, 10 megger full height hard drives that had come out of one of Dave's AT&T 6300 Unix machines. (10 Megs for Unix won't even hold the OS, these days!) The 9mm stuff from the MAC 11 seemed to do the most damage, (which is understandable considering that the M-16 basically puts out .22 slugs).

The hard drive was remarkably resilient. It with stood several, dead on hits from both before it really began to look like it might even need to be serviced. But our aim got better and, by the time we were done, we had isolated a particular platter which might cause problems during formatting–the one with the three holes in it. Might cause stiction, too. What do you think? Head crash?

In all of that, we didn't actually fracture the warranty seal, so we figured we'd return it under warranty. "Gee, we didn't even notice that sulfur smell!"

So anyway, we had a good time. Dave is one of our few computer friends with whom Jennifer and I actually feel comfortable discussing non-computer topics. And Beverly is doing just fine, too.

Networks—Blow Yer Mind!

Recently, I have been setting up a LAN (local area network) here in our store. Basically, until now, we have had one main cash register/order taking computer. Now, we will have six, with a whole lot of printers, a network modem, etc.

I have set the network up using PC clones (Atari Brand PC clones, mind you) and thin Ethernet. This allows throughput of nearly 1MB per second, which on the whole is pretty impressive.

Obviously, I would have liked to have set the network up using ST's / TT's / Falcons, but it just isn't that practical. Similarly, it isn't that practical to do it using Macs, either. Here's why.

If it were to be done on the ST, it would have done using MIDI (slowest), the Mega STE/TT/Falcon LAN port, or with a cartridge based network (like Paul Swanson's Lantech system).

I like the new Localtalk LAN connectors best, because they're built in, elegant, and hold hope of being Appletalk compatible. But while the LAN port is fine for peer-to-peer networking (where users can copy and share files from other machines on the network), it really doesn't cut the mustard for a server-based network.

Some of you may be saying, "huh?" (For those of you who are just saying, "Yeah, OK," skip this paragraph). Well, the deal is that with a peer-to-peer network, you assume that all data is spread out essentially evenly across all machines on the network. That is, there is no one machine that will bear the brunt of the network's labor. It will be equally distributed. A network based on a file server assumes just the opposite: there is **one** machine with the bulk of the data, and the other machines will be continually accessing that machine's data. It's really pretty simple.

The reason that the LAN port is unacceptable for a server-based network is speed. It only runs at around 40K per second, which is about as fast as a high-density disk drive. You can see why this speed is acceptable for a peer-to-peer network. Most files that a user may need will probably not exceed 40K, and very few of them will probably exceed 1MB. So the maximum amount of time that somebody might be waiting for a network file to zoom over the wires would be 25 seconds or so. No big deal. Most files will transfer in a second or two anyway.

For my server-based network, I have one very fast (50MHz 486DX with a SCSI hard drive) machine connected to five slower 386SX machines. The 486, hereinafter called the *server*, is running a database program (a multiuser version of dbMAN, just like on the ST), and is squirting information across the network. And kids, it's squirting *lots* of information! Many, many megs sometimes. It just isn't that practical to try to implement a server-based network of any size on a Localtalk based LAN. Period. It's too slow.

Using the Lantech cartridges starts to make more sense. They compete very favorably with Ethernet, but they're not too cheap, either (about $300 for two cartridges and software). If I were to use Lantech cartridges, I would probably use PowerPoint Software's excellent *PowerNet*, which supports file and record locking–something that's essential for a network based database.

Woops! VersaSoft has not released a network version of *dbMAN* for the ST. They already have the code written for their PC and UNIX versions, but have been reluctant to hook it into the ST because of the lack of a network standard. If you use *dbMAN* on an ST and would like to see it networked, send a letter to Charlie Tseng of VersaSoft, politely explaining about *PowerNet*. It's the closest thing anybody has to an Atari network standard right now, and it would be great if VersaSoft could support it. Include in your letter a reminder that he can sell the multi-user version for 2-3 times the price of the single user version.

I guess I haven't explained what file and record locking are yet, either. When you have a network, there is some probability that two of the computers are going to want to access the same file at the same time. There are two ways of handling this. For most files, it might be possible to grant an unlimited number of machines access to a single file in a read-only mode. In instances where writing is required, the file is opened and reserved on a first-come first-served basis. The user who opens the file first gets exclusive access to the file for as long as he needs it. After he closes the file, the next user can access it, etc.

That's a bit like having a bathroom with three stalls and only allowing one person in the entire bathroom at a time. Ideally, you could have individual locking doors on each stall such that when a user is using stall A, stalls B and C would be accessible. Similarly, when stall B was in use, stalls A and C would also be accessible to other users.

If you think of the bathroom itself as a file and of the stalls as records in that file, we have implemented a fine model of record locking. This is exactly what database programs do when they work with a network protocol to perform record locking.

Computer 1 says: Give me read/write access to file.dbf.
Server says: OK.
Computer 2 says: Give me read/write access to file.dbf.
Server says: That file is busy right now, but what record do you want?
Computer 2 says: Record #10112.
Server says: Computer 1 is just using record #765 right now. Go ahead. I'll make sure no one tries to mess with 10112 while you're using it.
Computer 2 says: Thanks.

You can see why record locking is absolutely essential for a database running on a network. Without it, you would always be having contention, because entire files would be locked instead of just specific records.

With record locking and a multi-user system comes added responsibility, too. Consider this:

User 1: Changes the address of customer #12.
User 2: Tries to write up a sale for customer #12, but thinks his address is wrong because he didn't know that it had just been changed. Changes back to old address.
User 1: Prints shipping label for customer #12 and is shocked to find the old address!

Obviously, this can happen on a single user system, too. But it is much more likely on a multiuser system. How far do you go to try to prevent this sort of thing? Should the program inform User 2 of his or her ignorance? How long after User 1's change of customer #12's address should it wait before it stops informing people about the change? And gee, how much program overhead do you want to sacrifice to the god of human ineptitude? That's a tough question.

Other issues like security come to mind. That's not a real big deal for me, but it's a real nightmare for some network administrators.

So if VersaSoft were to support the record locking and file locking in *PowerNet*, then this endeavor could easily be transferred back onto ST machines. And I can think of ways to fine tune the system so that it would minimize network traffic. Until then, though, it's going to have to run on some pea-sea machines.

I was going to tell you why Macs are bad for this application, too. They use the same Localtalk RS-422 LAN standard for AppleTalk, so they're slow, too. You can get Ethernet for Macs, but it's expensive. I paid under $100 each for the Ethernet adapters on the PC network.

For the ST, there are some pretty advanced (and fast) networking solutions available in Europe, including Ethernet and TCP/IP. But when I say Europe, I don't mean England. Mostly Germany. And the systems tend to be pricey, in German, and lack appropriate database software to back it up. If I were a German guy in Germany who knew German and thought the way Germans think about solving problems, there'd be no problem–I would just devote a programming team of four to solving the problem in-house. But alas, I'm just an American dude and I don't have the time to get that involved. It's cheaper for me to just get a few PC's.

Boy, PC's Sure Are Nightmarish

I consider myself a renaissance computer user. I've used Ataris, Macs, PC's, Unix machines, vaxes, Timex Sinclairs, Commodore VIC-20's, you name it. I don't hesitate one bit when I say that I would rather use an Atari 400 than a PC clone.

But hey, that Ethernet card never did quite make it out for the 400, did it? And gosh darn it, whatever happened to decent cassette-based XBASE database management systems?

So, I'm stuck with PC's. Dude, like what is up with this 640K memory thing? It's like it was blowing my mind, 'cause I had eight megs installed, see, and I was getting these "Out of Memory" messages all over the place. So then I like installed 20MB of RAM, and I still got out of memory messages from *dbMAN*, and it's like only a 200K program. Dude, like are these things messed up or what man?

I love Motorola 680x0 based machines, where RAM is real. Any computer where you have to buy a memory manager program just to be able to not have free access to all the RAM above 640K is messed up. Blow my mind.

For humans, the solution, for better or for worse, is to run *Windows*. Microsoft's network-ready version of *Windows* is called *Windows for Workgroups*. When network extensions to *MultiTOS* are finished (not too far away), *MultiTOS* will be what *W4WG* is now.

W4WG comes on eight disks. You begin by installing it twice, because the first installation reliably locks up. (The Microsoft readme file says that this happens sometimes–*I'm reassured.)* On the second try, you actually are able to install it, and it eats about 10MB of hard drive space. (We shouldn't have shot up that hard drive, darn it! I could have used it for *Windows!*) Wow.

So then you use your remaining 200K or so on your hard drive to try to install a few programs. *W4WG* does allow you to do something kind of neat with MS-DOS applications (like *dbMAN*), though. First, start them running in a full screen mode. Then press [Alternate]+[ENTER] and the program magically switches into a window, multitasking with whatever other programs are running. Press [Alternate]+[Enter] again, and you're back into full screen, but it can still multitask with other Windows programs. Nifty, huh?

MultiTOS's MINIWIN program does this. Come by our store and check it out. You can run TOS programs in a window. Cool.

So anyway, *W4WG* also has other functions, like mail capability, a "chat" mode between two stations, and even a program called *Schedule+*, which will allow users on the network access to other peoples' appointment books. I think that when we get it set up, I will add things to Jennifer's and Ray's appointment books like "Cat Skinning at 10pm Thursday 6/25" and "Fluoride Treatment every night at 1 am." It could be a lot of fun.

All in all, I have to say that every individual piece of this PC network is functional, but systems integration is where PC compatible systems really fall apart. Everything is so generic that nothing really works out of the box. You have to make hexadecimal "exclusions" in your memory manager (so that your memory manager program doesn't try to auction off to programs RAM address space that really needs to be used for petty things like video or your hard disk controller). You have to configure dip switches for certain bus types, certain BIOS chips, certain days of the week, particular phases in Brooke Shields' cycle. It's really kinda nuts. The network CD-ROM drive still reboots the server whenever you eject my REM Fables of the Reconstruction CD. Why is this? What evil lurks in the heart of this computer? Maybe Bill Gates knows. Yeah, I'll have him over for dinner.

Religion

I think I've babbled about this before, but a little reinforcement never hurt anybody. People sometimes get confused about computers. Unlike religions and wives, with computers you can have more than one. I own a lot of different types of computers, and you can accuse me of polycompy if you like.

Different computers do different jobs. I would go nuts if I had to just use my Mac, or just use that blasted 486. I like my TT030 for most things, but sometimes I need to run a special piece of software, or in the case of the network, I needed to set up special hardware. You can bitch, you can moan, but the best answer is to pull yourself up by your bootstraps and do what you gotta do. And realize that for every purpose there is a different tool. Stop trying to use channel locks for every household application. Branch out into needle nose pliers, a socket wrench, or maybe a cordless drill.

If you're really a computer enthusiast (and my guess is that you are if you're reading this), I challenge you to go out in the world and really experience what's going on around you in the world of computers. Some of it's exciting–a lot of it's a big rip off. But stop having erotic fantasies about what it isn't–perfect.

It's really easy to sit in front of your ST and read the electronic rags where people continually complain and flame about this and that, all the while steaming to yourself about how your ST won't do one thing or another. Well, just stop. If you're that hell bent on "replacing" your ST, go out and buy something else just as fast as you would leave a dead-end job.

But if you're smart, you won't replace the ST. Because quite frankly, the ST is a wonderful tool. You may find that you prefer it for writing, for desktop publishing, for graphics–whatever. And what are you going to do with your used ST? Sell it? Yeah, right. Get $150 bucks for it? Why bother? Why not keep it around and use it for the incredibly powerful tool that it is? If you like programming at all, do it on the ST. PC's will break your mind.

The Microsoft and Borland C(++) compilers for *Windows* don't really allow you to create *Windows* applications. That costs extra. Do you really want to worry about near and far pointers, memory boundaries, and page swapping. I know that it really turns me off. When you want to write a program, why not do it on a system where you can easily allocate huge blocks of contiguous RAM and do DMA transfers with your hard disk.

A TT030 with its 16MHz system bus (and 32MHz CPU clock) is in many ways much faster than my 486/50. While the CPU clock on the 486 is 50MHz, the bus speed is only about 12MHz. That means that every card–the network card, the video card, the SCSI card, the serial / parallel interface card–are all being accessed at just 12MHz.

Incidentally, Apple's fastest machine right now is the Quadra 950. It's a **33MHz** 68040. Yeah, the 68040 is faster and more efficient than the 030, but even the Quadra 950 is only a little ahead of the TT030 and even the Falcon 030. The Quadra 950 doesn't even do DMA disk access!

The 32Mhz DSP and Blitter in the Falcon can do some serious damage to a Quadra 950 or to my little 486/50. That's all without the help of the 68030.

Make no mistake. Computers are getting more powerful, their applications more diverse, and software is getting very, very interesting. But don't blame Atari for not encompassing every aspect of this revolution. They are an important part of this revolution, but they are only a component. If you really want to experience the revolution from every angle, up close and first hand, it's gonna take a whole lot of spending money.

So decide what part of the computer revolution you would like to experience and then go out and buy what you need. But hang on to your Atari, and consider a Falcon 030. If you're really a renaissance computer dude, there's no reason to use any one computer over another, and you'll recognize that the Falcon is extremely powerful.

The End

I am going back to program some more in *dbMAN* now. (Oh, good, I get to use the PC. [drudge]) When you really boil down what I've said here, it's been, "There are some really cool things you can do on PC's and Mac's." But it's also been, "There are some really cool things you can do on the ST and Falcon." You may decide that you want to do some cool things on other platforms, but don't close your mind and your eyes to the exciting applications of the ST and especially the Falcon just because it's the easy thing to do.

As the Falcons become more and more available, more and more cool Atari applications will be discussed here in the pages of *Current Notes*. Be a renaissance computer nut and take the time to read about them and try them out.

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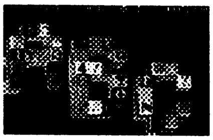

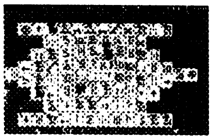

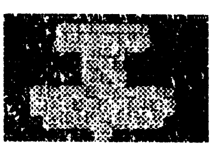

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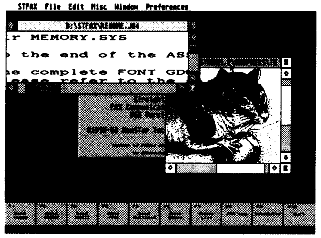

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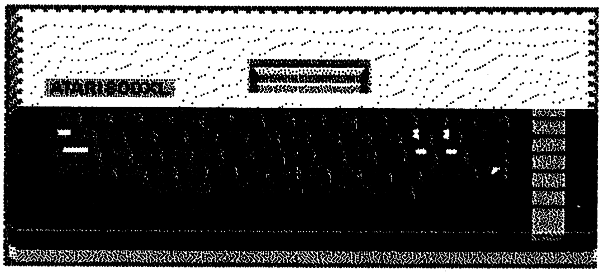

Information Overload

I have that disk ... somewhere. I read about that in *ANALOG* or *Antic* ... or was it *Current Notes*? I know it's got to be on my hard drive!

There is this stack of about 50 disks, many without labels, wedged between my monitor and disk drive. (No comments about stray magnetic energy, please! What I can't see won't hurt me.) There are countless stacks of paper and little notes to myself here and there. There are piles of magazines and books at my feet and on the little shelf under my desk. Don't even try to open the drawers. As I stare at the paper and magnetic media wasteland I used to call my "computer desk," I've come to realize that I've been a victim of information overload.

It's coming in faster than I can handle. Not only do I have more stuff than I know what to do with, but I have stuff that I don't know I have. There are quite a few of you out there who know exactly what I'm talking about. Is there a "twelve step program" to get us out of this mess?

Getting It Under Control

Finding that program, text file or article can prove to be a daunting exercise at times. It's now almost become more important to know where something is than to actually have it. The only way to do that, unfortunately, is to be organized–a hopeless task at times. What we really need is a painless way to become organized with our computer paraphernalia. That is probably a long way away, but hopefully someone is thinking about it. In the future, maybe these wonderful computers of ours can help in this task.

In the meantime, there are several things you can do to help you not sink as far into the pit as I have. First, keep your hard drive organized with a good subdirectory structure. Second, label all your disks and find a good disk catalog program to track them. (Hopefully, we'll have an article about this soon.) Write everything in the same notebook rather than on scraps of paper.

On the magazine front, several people are working that problem. As you know, there are several indexes around, but they are somewhat limited. There has been quite a series of discussions on this point over FidoNet. Hopefully, we'll have a master article index someday for the 8-bit. If you get any other good ideas, besides 25-hour days, please drop me a line.

Elsewhere in This Issue

Frank Walters continues his four-part series on TextPRO macros this issue. Frank is working some additional projects for *Current Notes* and we are looking forward to that.

Veteran *CN* contributor Ed Hall joins us again with a review of Aerion Software's new game, *Fury: The Wrath of Taljun Cathu*. Ed is now plugged into FidoNet and was actually successful in sending his review to me via NetMail.

New contributor, Mike Todd provides us with a timely review of the recently released *Message Board 2000* by Pab Sungenis. Mike is a member of the Atari Archive Project in Louisiana, as well as a part owner of Crescent City Conventions, Inc. and Acme Science Fiction Corp. He's been involved with the Atari since picking up his first 800XL in the mid 80's and still uses his 130XE nearly every day at his office.

Alex Pignato is a name familiar to most Atari 8-bitters. In his first *Current Notes* article, he provides us with some insights into one of the most well-known Atari 8-bit User Groups in the world, the Ol' Hackers. Ol' Hackers is very active when it comes to supporting "corresponding members." This is becoming more important as the number of local 8-bit user groups diminish. For those of you who don't know Alex, he's a retired, 67 year old, trial lawyer. (Don't hold that against him.) He first ventured into the personal computer world with his trusty TI-99. (Don't hold that against him, either.) He got into Atari 8-bits when the local computer repair guy compared the huge stack of Commodores needing repairs to the few broken Ataris in the shop. Alex was sold after that. In addition to being the spark plug for Ol' Hackers, Alex is very active in local community service projects.

CompuServe Lowers Rates

CompuServe has reduced the hourly connect rates for subscribers to its Basic Services plan. Connect rates for basic services subscribers dropped as much as 37% for most of CompuServe's services, including the Atari 8-bit forum effective Feb 28.

Under the Standard Pricing Plan, members now pay a monthly fee of $8.95 for unlimited connect-time use of 36 basic services, to include travel, shopping, investment and games. When using CompuServe's other services, members now pay an hourly charge of $8 for access at 1200 or 2400 baud and $16 for 9600 baud access.

Previously, members paid a monthly fee of $7.95 and hourly charges of $12.80 and $22.80 for access at 1200/2400 and 9600 baud respectively. As per previous policy, the Basic Services plan is not mandatory for members, but the new lower rates certainly make it more advantageous to switch.

New GEnie comp.sys.atari8 Message Base

The GEnie 8-bit meisters (Darlah, Chuck and Craig) have added a neat new feature on our favorite page 665. This is hot now. *LIVE FEEDS FROM THE INTERNET!!!* Yes, in the message section, you can read messages direct from the comp.sys.atari8 newsgroup. This is being done on a trial basis. You can't respond directly to the newsgroup via the message base, but you can "respond" to the rest of those in the RoundTable. Of course, you can send a personal message to a sender via GEnie's Internet mail connection on page 200 or page 207. See my October 1992 column for more on that.

Wish List/Work List

Here's a list of the articles in work or in hand for *Current Notes*, followed by a list of articles I'd like to see written. Let me know if you're interested in taking on any of those topics or if you would like to write on a different subject.

Articles in Progress or in Hand:

- 8-bit Memory Upgrades (Wes Newell)
- 8-bit Overseas Market (Steve Hoffee)
- 8-bits, ST's and Steam (Gordon Hooper)
- AnsiTerm (Ken Appel)
- BBS Express! Professional (Craig Rothman)
- Best Prod Clock Cart (Brad Koda)
- Black Box Hard Drive (Bill Mims)
- Capital Gains Template (Rick Reaser)
- Data Perfect Utilities (Dick Reaser)
- Digi-Studio (Rick Reaser)
- Disk Library Programs (Roger Meston)
- DK Utilities (Charlie Koontz)
- HD Backup Pro! (Bill Mims)
- Mission Shark (Roger Meston)
- MyDOS/AtariDOS (Bill Mims)
- Ol' Hackers TurboBASIC Kit (by Chuck McBride)
- Small Business System (Dennis Cline)
- SynCalc Budget (David Harris)
- The Internet (Oscar Fowler)
- The Timesaver (Gordon Hooper)

Wish List (need volunteers)

- 130XE Keyboard Replacement
- Carina Bulletin Board System
- Carina Computer Networks
- DELPHI
- GEnie/CompuServe comparison
- Maze of AGDAgon
- New European Games
- Oasis Bulletin Board System
- TextPRO+ 5.0
- Topic of Your Choice!
- Usenet

AIM Publishes Mar/Apr Issue

I received the Mar/Apr *Atari Interface Magazine* the first week of April. It was the same newsprint format as the Fall *AIM* and ran 34 pages. Four of the 11 articles were 8-bit specific. There was no editorial, so it isn't possible to definitely state *AIM's* direction based on the issue itself. It is interesting to note that the second lead article by Tim Holt was entitled, "Atari is Dead."

Keeping It Short This Month

I decided to keep my column short this month, since a lot of the stuff I had hoped to put in last month's issue arrived this month. You'd rather read these other guys than me anyway. I'm still looking for a GEnie and/or CompuServe helper. Call me.

That's all for this month. Please be sure to send me your requests, questions or complaints. My address is on page 2.

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Message Board 2000

A New 8-bit Shareware Video Billboard

Review by Michael W. Todd

As it is with many things, the recently released *Mboard 2000* shareware program was not created to fill a pressing need, but rather to improve upon an existing condition. In January 1992, Quinn Broadcasting, a New Jersey public access cable station, was running its message and information board on an Atari 65XE using a basic program that allowed only a GRAPHICS 2 text display. As you can probably imagine, in broadcasting where image is everything, this was pretty plain. Added to this was the fact that if you had to change, update, or delete a screen of information, you were required to make all your changes to DATA statements in the main body of the program.

Pab (Paul) Sungenis was commissioned to create a message and information system that would not only better use the Atari 8-bit's graphics abilities, but also provide a cleaner user interface, improve the on-screen visual look, and most importantly, be easier to update and change. Many of you will recall that Pab is also the author of the *AtariLink BBS*, *PabMail PCBoard* offline messaging system, and the *PabQwk* offline messaging system. [Editor's Note: See the March '93 issue of *Current Notes* for a review of *PabQwk*.–RR] One month after his initial tasking from Quinn Broadcasting, Pab delivered the first version of *Mboard 2000* for use at the station.

What Is *MBoard 2000*

Mboard 2000 is a set of programs that allows you to both create and display full screens of text and ATASCII graphics information in up to three graphics modes with three text colors and one background color. As an added highlight, your third text color can be toggled to flash approximately once a second. Each screen's custom display list, color register information, text data and an optional expiration date is stored with each screen's data files allowing displays to have many different looks and feels. Setting the optional expiration date allows the editor to remove older screens en-mass, thereby speeding up the maintenance of data files as well as doing away with the need to remember to remove files that have gone "stale."

A Little History

Originally written in *TurboBASIC XL*, *Mboard 2000* would have been able to run under most DOS's. However, when the 64 file limit of AtariDOS compatibles proved too restrictive and a decision was made to include an on-screen clock calendar via the R-Time 8, the program was ported to CTH software's *TurboBASIC 3.2q*. Doing this allowed *Mboard 2000* to be run under *SpartaDOS 3.2d.* With *SpartaDOS*, *MBoard 2000* is able to access up to 100 screen files and use the time/date command table vectors. Once set with the TIME and DATE commands, you don't even need an R-Time 8 to keep time, since the internal jiffy clock can do that. *TurboBASIC 3.2q* is the only version of *TurboBASIC* that will run under *SpartaDOS 3.2d.* As a result of this change, *Mboard 2000* will now no longer run under *TurboBASIC XL* nor will it run under any DOS other than *SpartaDOS 3.2d* (or later). Under *TurboBASIC XL*, the RAM under OS is over written for variable usage and you lose the time, date command table vector; *Mboard 2000* locks up when it tries to access the current time and date. In the well written documentation included with the program, the author stresses that the program can be modified to use the *SpartaDOS* Z: handler for use with other DOS's. As I did not attempt to modify the program, I was unable to test *Mboard 2000* under any DOS's other than *SpartaDOS 3.2d* and *SpartaDOS 4.20* (the SpartaDOS X Cartridge known, as *SDX*).

System Requirements

Mboard 2000 will run on any 8-bit system with at least 48k of memory. The system used for primary beta testing was a 130XE attached to a 256k MIO running a 10meg hard drive and two double density 1050's. Both *SpartaDOS 3.2d* and *4.20* were tested. In addition to *Mboard 2000*, you'll also need to get a copy of *TurboBASIC 3.2q*. In order to use *Mboard 2000* without modifying it to support the Z: handler, you'll also need either *SpartaDOS 3.2d* or *SpartaDOS X*. Though not required, the program makes able use of the R-Time 8 cartridge.

See What It Does

Loading and running the demo is as simple as loading *TurboBASIC*. *TurboBASIC 3.2q* looks for a file named AUTORUN.BAS on drive 1; this is the main *Mboard 2000* program. Once loaded, *Mboard 2000* proceeds to load each of the included sample screens, labeled SCREEN0.DAT through SCREEN3.DAT, displaying each for about 15 seconds. Now while this might not seem like a very long time, it's actually more than enough to comfortably read a screen full of data. A screen is composed of three areas. First is the top bar, a GRAPHICS 0 line whose data comes from a text file you create. Next comes the main screen body. The usable number of lines here vary according to the mix of graphics modes. Last is the time date line, also a GRAPHICS 0 line. The included sample screens represent a good example of the range of looks and colors you can achieve. Currently set up to run from drive 1, *Mboard 2000* can be easily modified to run from your internal or MIO RAMdisk. All you have do is change the variable DSK$ in both the main program and the editor to the drive designation you want to have *Mboard 2000* run from. As good as this main program is, it's not the true heart of the system. The real power to *Mboard 2000* lies in its screen editor.

The Editor

When you enter the editor, you're presented with a complete list of options for adding, deleting, editing, swapping, and killing an existing screen. One of the nice surprises about the editor is how similar it is to a standard Atari text processors. The documentation covering the editor and its associated command keys is very clear and well written. After just a few minutes, anyone used to working on the Atari will have mastered all the commands. For example, hold [OPTION] while pressing [Clear] to clear a line, hold [OPTION] while pressing [Delete] to delete a line and use [OPTION]+[Insert] to insert a line. It's just that easy. Within a few minutes of booting the program, I was putting together my first screen.

Using the [SELECT] key, you can toggle the line you're currently working on through GRAPHICS modes 0, 1, and, 2. The editor keeps track of the number of lines on the screen and adjusts to keep the screen size constant. (Remember, a GRAPHICS 2 line takes up two GRAPHICS 0 lines.) Text in GRAPHICS 1 and 2 can be in any of three colors, and all text in color number three can be made to flash. Setting the text and background colors is very easy. The editor allows you to select both hue and luminance. This gives you a wide range of colors to choose from. However, something interesting does happen here that you should watch out for. The setting of the luminance of color two directly effects the final color for the text in all GRAPHICS 0 lines. On a number of occasions, I found my GRAPHICS 0 text color matched my background color. While not really a problem, it does mean that there are colors that will not work together.

Another nice feature of the editor is graphics mode sensitive text centering. Once text is entered, a simple [OPTION]+[C] will center the text on the screen regardless of the current graphics mode you're working in. Something to watch out for here is that you must have your cursor positioned at the end of the text line you want to center and that the line does not exceed 39 characters. If you're in the wrong position on the line, or the line exceeds 39 characters, the editor dumps everything you've just done and returns you to the main menu. This happened to me on more than one occasion, and I quickly learned to constantly save my work as I went along. This, however, is only a minor fault in an otherwise great little program.

Real World Use

Okay, so it sounds like a super little program but you say to yourself, "What do I need it for, I don't work for a cable station..." Well, neither do I, but I do put on media conventions here in New Orleans. A number of convention facilities, while having close circuit television, don't have or don't use a message and information system. The real acid test came just two weeks after I'd first downloaded the program. On the spur of the moment, I decided to run *Mboard 2000* as the convention's main information system. For those of you who've never worked a convention, you should know that things change, all the time. The strength of *Mboard 2000* showed itself in its ability to allow fast updates with little or no downtime. Its user friendly editor even let non-Atari people quickly create additional daily updates with little or no help. And the ability to attach expiration dates to the screen data files aided greatly in keeping our information fresh.

Availability

MBoard 2000 is available on GEnie as File #6259, MBOARD.ARC and on CompuServe in Library 5, MBOARD.ARC. The required CTH *TurboBASIC 3.2q* is available on GEnie as File #6286, TB32Q.ARC and on CompuServe in Library 14 as TB32Q.ARC.

The Final Word

The bottom line is, this is a very good, well written, well documented program. It does everything it was designed to do–easily and efficiently. Under fire at the convention, where everything that can go wrong usually does, *Mboard 2000* never let us down. This is something I've noticed about programs written by Pab Sungenis,;a lot of care appears to be taken with everything he writes. His programs are all very well error trapped and the documentation is always clear and easy to follow. At a time when there are few new software titles for the 8-bit, *Mboard 2000* is one that gives new life to the Atari 8-bit by giving it a job it can still do in the real world.

The author has not recommended a Shareware donation amount for his program, but requests that the user send what he feels is fair value for the program. Keep this in mind; if we don't support our shareware authors, they won't be around to support us.

The Ol' Hackers Atari User Group, Inc. (OHAUG)

A Place to Turn
When You Don't Have a Local 8-bit User Group

by Alex Pignato, OHAUG President

*[The following article is a 1993 update to the OHAUG story that appeared in Issue #61 (July 10, 1987) of the now defunct Z*Magazine.]*

In the Beginning. It started innocently enough. I read a message on a Bulletin Board System (BBS) from another "poor soul" (Kevin Blaes) who was pleading for help so that he could upload and download with his Atari 835 modem. It had taken me six months to get a program to do this with my 1030 Atari modem, so I had a genuine appreciation for his frustration. I left him a message to send me a disk with programs on it and I sent back the program he wanted along with other public domain programs. The exchange of disks between us continued at a rapid pace, each of us trying to outdo the other.

Over the next 1-1/2 years, I kept addressing Kevin as "The Young Hacker," and signed notes as "The Old Hacker." He responded in kind. We also spoke on the phone frequently, and, in short order, a friendship evolved. This is part of what computers do for people; they make friends. During this time, I was conversing with Jerry Ginsberg, an acquaintance, and found that he had an 8-bit Atari, too; but no one in his family was using it. I told him about this "game" machine's potential, and its ability to do countless other things. Soon, he got hooked, almost as deeply as I. His wife and children got involved to the point where they actually had to set up a schedule to use the computer!

When the Long Island Coliseum had a Computer Electronics Show, Kevin suggested we meet there in person. I brought Jerry with me and the three of us spent a great afternoon at the show. When we saw all that there was to see, we decided to have a chat over a cup of coffee. An hour later, finding it very hard to break up, Jerry suggested that we all meet again at his home in a couple of weeks.

OHAUG is Born!. When we next met, we each brought Atari friends; and, suddenly, there were eight of us. It was suggested that we start a user's group and so "The Ol' Hackers Atari Users Group (OHAUG)" was born in December, 1985. I was voted in as President, Kevin as Vice President and Jerry was made Corresponding Secretary.

When Jerry's house got too small, we moved over to Tom Carroll's house and took over his top floor. Tom, who was self employed in the electronic recording field, had a studio with at least three Atari 800's, an IBM, and I don't know how many video cassette recorders. We met once a month on a Saturday afternoon from 12 to 5 pm and had a ball at our informal meetings, exchanging knowledge and data.

When the group got too large again, we looked for new quarters. Thanks to Jerry, we got permission to use the Plainview Public Library. Interestingly enough, the library was run on Atari 800's, so our group was very welcome.

What We're About. Our aims are similar to those of other Atari users groups. We exchange knowledge and information with each other and with over 60 other users clubs throughout the United States, Canada and Europe. We have a few members who have technical knowledge and who are constantly looking to make modifications to the hardware. We also have members who are professional programmers for various banks as well as many amateur programmers. The members are all adults and are a cross-section of the community. Our membership includes blue collar workers as well as many white collar professionals. The club brings together people from all walks of life with a common interest and the results are very warm friendships and growing enjoyment of our 8-bit computers. We are deeply committed to the 8-bit community. For example, we unanimously volunteered to package, stamp and mail over 200 *Atari Classics* disks, and will do so as future issues are made. We understand that at present about 300 people have bought these disks, more than was expected. We are also proud to be picked as the July 1987 Z*Magazine "User Group of The Month."

Monthly Meetings. We still meet at the Plainview-Old Bethpage Public Library on a Saturday of each month. Which Saturday of the month changes, so please contact us if you are planning to attend. Meetings generally start at 12 noon and the first hour is spent in socializing and setting up the club's equipment. After we have an hour's business meeting, we break for coffee and cake and have a door prize drawing. Then we break up into smaller groups for demonstrations and classes until 5 PM. or until we are thrown out of the library! When we're at the meeting, we don't like to leave the library even after the meeting's end at 5 PM. The nicest comment we hear is that the members can't wait for the next meeting.

Telecommunications Connections. At one time, the club owned its own BBS, but now we can be reached through two local BBS's, whose SysOps are both members of OHAUG. The BBS's are:

The Machine	(516) 764-5748	SysOp:Lou Trapani
The New Nest	(516) 234-4943	SysOp:Jim Harris

My handle on both is "TRIALA." These BBSs network with other BBSs throughout the world, so OHAUG can be reached through "TRIALA" at great distances. The New Nest is in the International Atari Network (IAN) [See Dec '92/Jan '93 issue of *Current Notes*] and the North Eastern Atari Regional Users Support (NEARUS) network. The Machine networks with International Carina Network (ICN) and with the American Carina Exchange (ACE).

Corresponding Memberships. One of the unique things about OHAUG is that we actively support "corresponding members." These are people who can't come to our monthly meetings in person, but are still with us in spirit. This is an attractive option for those who don't have a local user group. OHAUG is a way to stay in touch with fellow Atari 8-bitters.

We are proud that OHAUG's ranks boast many "famous" 8-bitters, many of whom are corresponding members. They include Ben Poehland (managing editor of *Atari Classics* magazine), Tom Andrews, Charles Cole, Ron Fetzer, Mark Bensley, Stuart Murray (editor of *FUTURA* from Scotland), David Ewens (editor of England's *Tyne & Wear Atari User Group* newsletter), Larry Tischbein (editor of the *Lehigh Valley Atari User Group Newsletter*), Joseph Hicswa (president of the Jersey Atari Computer Group (JACG)) and Sam Cory (JACG Librarian). The list goes on and on. [Editor's Note: You'll note that many of the above have had their work appear right here in *Current Notes*.–RR.]

So how do we stay in touch with each other--especially with our corresponding members? In the beginning, we had a normal hardcopy club newsletter. Now we publish a double-sided disk bi-monthly "softcopy" newsletter. It's loaded with articles of interest from all over the world, as well as a number of interesting ready to run programs. As often as possible, we include the documentation, if available. We exchange our disk-based newsletter with over 60 clubs, worldwide. We have corresponding members in Canada, the United Kingdom, France, and Italy as well as all over the United States. Recently, we've even added a 65XE owner who resides in Moscow! Since he can't obtain American currency we carry him just for the honor of doing it. The Cold War is really over! As we exchange letters with our corresponding members across the planet, they have become good friends as well as just members.

We respond to problems that any OHAUG member may have. Recently, a corresponding member wanted to know where he could buy a piece of hardware. Another corresponding member responded with the needed information. This has happened many times, as can be attested to in the club meeting minutes that appear in our newsletter.

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If you are a lonely 8-bitter, or if you want more from your 8-bit, you are welcome to join us. Send your check or money order made out to Ron Fetzer to:

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FURY

THE WRATH OF TALJUN CATHU

Review by Ed Hall

FidoNet Node 1:3402/30 (Edwin Hall)

Like pop songs, successful computer games must have a hook. This premise is amply illustrated by *Fury: The Wrath of Taljun Cathu*, a new Atari 8-bit game from Aerion Software.

Fury serves up a tired gaming concept (rescue the princess from an egomaniac with a silly name). The screens are laid out like countless other adventure games-a main play area populated by identical trees, and an information area on the right showing score, health, gold, etc. The hero and many of his enemies are constructed out of blocky, one-color players, and the play-action is pure shoot-em-up. And, yes, the game requires BASIC.

Fury can be yours for $19.95 (plus $3.50 for shipping and handling). A steep price for a game that sounds so unpromising.

Here's Why You Should Buy It

First of all, the graphics are quite good. Not state-of-the-art, mind you, but nevertheless very pleasing. Loving attention to detail is perhaps the best way to explain it; the trees, for example, are multi-colored, and the chests and scrolls have metal fittings. There is also a good title screen, and brief animated "intermissions" between the five different levels. Soundwise, there are different pieces of music for the title screen and each level. The tunes are simple, yet pleasing.

While the cumulative effect of all these touches is telling, they're still not enough to lift the game much above the hordes of others which it imitates. Then it sets the hook.

Here Be Monsters

After blasting and dodging your way through a dozen or so interconnected screens, each one a bit more difficult than the last, you stumble without warning across a new foe-a malevolent, green–skinned creature lurking in a pool of water. As before, the graphics are not state-of-the-art, but they are pleasant and well-executed. Best of all, it is the element of surprise and discovery that suddenly elevates your appreciation of the game.

With renewed vigor you return to the beast, searching for a way to defeat it. When at last it has been vanquished, you press on, certain that the key to the next level is close at hand. You find it all right, but your sense of accomplishment is short-lived, for the key is guarded by another monster, a writhing carnivorous plant. Your enjoyment of the game is cranked up another notch.

Finally, you devise the necessary strategy, which gains you the key. Now you must fight your way back to the portal that leads to the next level. It's not an easy task, for the enemies are many, and luck plays a part in your success. But at last you make it, and the relief you feel is almost tangible as the portal opens and you stride forward eagerly-only to be confronted by the most impressive monster so far, a huge, rampaging idol (or perhaps it's a bad-tempered forest god) firing at you relentlessly.

You are hooked. You will return again and again until this last foe is defeated, and you can leave this realm of trees. Your reward is an animated exchange between you (in winged helmet) and Taljun Cathu. Then it's on to the next level, Rock World, where the decor consists of carved stone blocks instead of trees. There is also a new color scheme, a new piece of music, and of course new enemies.

Other Worlds

There are five worlds altogether: Tree, Rock, Alien, Insect, and Fire. Tree World has a total of 20 screens, and presumably there are similar totals in the other worlds. Along the way you will encounter shops where you can buy weapons or powers with the gold you've accumulated. There aren't a lot to choose from-only six-and you'll have to experiment to find out how much they cost and which ones are most useful. Fortunately, some charitable soul has left a lot of gold lying about, either in plain sight or inside the chests mentioned earlier. However, these chests also include dried dung (no effect), healing salve (increases health), poisonous spiders (decrease health), and midget thieves (steal gold).

Other items to watch for are scrolls, which may contain the letters T, A, L, J, U, and N. Finding them all will aid you in your quest. There are also stacks of provisions that can be collected.

Video Buddhism

You'll need to use every scrap of advantage you can get, for *Fury* is not an easy game. First of all, some screens so well-defended that just getting though them is a challenge. Since there is no pause control, mapping out a strategy is very difficult when you're being pounded remorselessly by both stationary and pursuing attackers.

But that's not all. The game is also very difficult because success depends in part upon what you can collect from the chests. Since their contents are placed randomly at the beginning of each game, you'll need luck as well as skill to win through each world.

But perhaps hardest of all is the cruel fate reserved for unsuccessful heroes. Once your health points run out, the game is over and you are doomed to start again at the very beginning. Due to the aforementioned difficulties, this is a particularly nasty form of reincarnation, for no matter how many times you've done it, working your way through each world is never a snap, never a sure thing.

On Being Difficult

I realize that difficulty settings are a very subjective area. If a game is too easy, and can be completed too quickly, people won't feel they've got their money's worth. For those who love wrist-busters, and feel that difficulty equals playability, this game is right on.

For those players who, like me, lack blazing reflexes and a titanium joystick, the game's designers could have incorporateda system to allow players to start at higher levels once lower levels had been completed-a humane feature often employed by KE-Soft games. Or, they could have included a demo routine, which would give us a peek at the higher levels. For those of us who'll never get beyond Rock World, the game designers are hiding their light under a bushel by not permitting us to see more of the game's fine graphics.

Summary

So, folks, there it is. The price is a bit high, but the product is good. If the response is good, Aerion Software has indicated an interest in producing more software for the Atari 8-bit, including games, simulations, and educational programs. I look forward to more releases from these gifted programmers.

Order your copy of Fury from:

Aerion Software
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TextPRO Macros: A Guide for Beginners

Part 2

Interactive Macros

By Frank Walters

[Editor's Note: This is the second of a four part article designed to introduce the faint at heart to the wonderful world of TextPRO macros. –RR]

I'm reminded of a story...

I was using a program the other day to create checksum bytes for BASIC line listings. I got a text file with checksums and line numbers from that program but had to figure a way to move the two-byte checksum from the one file and put it in front of the actual line in the listed file so it would print out that way. I loaded the listed program into Bank 1 of TextPRO and the checksum file into Bank 2 and began cut and paste, moving the checksum and space from Bank 2 to the appropriate line in Bank 1. It was working, but it was WORK! After about six or seven moves, I realized this was a job for a macro. I counted the keystrokes to move one checksum and return the cursor to where it started, but at the next line below. Including changing the checksums from normal video to inverse, it took 11 keys for each move.

I typed those 11 keys into a macro defined for the [START] key (#). I then tried it. Every time I pushed the [START] key it moved another checksum, changing it to inverse. With 100 lines, that reduced 1100 keystrokes down to 100. Not good enough. I added a "GOTO" at the end that looped back to the # key again, making a continuous loop once the START key was pressed. The macro contained 36 bytes and defined three other macros: [HELP] or [?] to reload TEXTPRO.MAX, (Autorun) or [@] to set ATASCII Mode for the inverse switch, and [START] or [#] to do the actual transfer.

I started over and this time *one* keystroke produced all 1100 keys necessary to move the entire list of checksums from Bank 2 to Bank 1. Now that's efficiency. Of course, I had to hit [Break] when it reached the end of the buffer and was no longer moving anything, but it sure made the job easier. It only took me three minutes to make the macro and now I have it available to do the job whenever it is needed. This is an example of a single task macro that can be loaded from disk whenever that task needs to be done, but is not needed for day to day use.

The Moral of the Story

The point of this is you need to understand how to make your own macros to take advantage of the real power of TextPRO to make your job easier. Sometimes I make a macro for just one task and then don't bother to save it because it's not likely to be used again. If, by chance, I need it again, it'll just take a minute or two to make another one.

Key Board Conventions

Keys on the keyboard are surrounded by brackets. [START] means the "START" key. Inverse characters are bracketed by "less than" and "greater than" symbols. ‹=› means inverse =, which is entered from the keyboard by first holding down [SELECT] and then typing the [=] key.

Multiple key strokes are indicated by an "underline" symbol or __ connecting the indicated keys. [SELECT]__[CONTROL]__[V] means first hold down [SELECT], then hold down the [CONTROL] key and, while holding down both of those keys, press [V].

"Control" characters must be entered into the *TextPRO* editor by pressing the [ESC] key first. Don't confuse this with *TextPRO* commands that are invoked using the [CONTROL] key. For example, typing [CONTROL]__[G] while in the editor allows you to do a global search and replace. This is different than the [CONTROL]__[G] character, which is an ATASCII Decimal 7 and looks like a thick backslash (\) on your screen. To get this backslash character, you'd type [ESC] then [CONTROL]__[S].

Where Are We?

In Part 1, we discussed the theory of macros and how you load them into the macro buffer and execute them by holding down [OPTION] and pressing another key or with special keys like [START] and [HELP]. We made a sample DEMO.MAX to show how these special keys work, along with the Autorun [@] macro key. Below is the now familiar DEMO.MAX:

```
#‹=›This is the [#] START key macro.
I now know this line will print.
s‹=›This is the [@] Autorun macro.
?‹=›This is the [?] HELP key macro.
```

DEMO.MAX only types on the screen and is of little value other than instructional. Let's modify it to make it do some work for us. We'll start with the HELP key [?]. With the above macro loaded into your editor, we are going to change the function of ?. Place the cursor on the "T" in "This" next to the inverse ‹=› and delete all after the equal sign. We are going to make the [HELP] key load the default TEXTPRO.MAX for us. The TextPRO command to load a macro is [CONTROL]__[V]. To type this in the editor, you must hit the [ESC] key first so the status line says "ESCape Set." Then type [CONTROL]__[V] and you will get the vertical line graphics character. This vertical line will be right against the inverse equals sign already on the screen. What do we do after [CONTROL]__[V] to load a macro? We type the filename. So do that. Type "TEXTPRO.MAX" and add a [Return] to that to execute the Load Macro command. The revised [HELP] macro should be entered as follows:

?‹=›[ESC] [CONTROL]__[V]TEXTPRO.MAX [Return]

Now save the modified DEMO.MAX to disk and reload TEXTPRO.MAX with [CONTROL]__[V]. Press [START] and type "DEMO" to load the new DEMO.MAX macro. After the Auto message, press [START] and finally press [HELP] and see how it loads TEXTPRO.MAX back into the macro buffer. Repeat pressing [START], type "DEMO" and [Return] and see how we can now go easily back and forth between the two separate macro sets. This is what is meant by "interactive macros." You load a task-specific macro from disk with [START] and the filename, and you re-load the default TEXTPRO.MAX by pressing [HELP].

I have an Atari 800 and it has no [HELP] key.

Good point. The question mark or ? is a SHIFT character, so an 800 can use [OPTION]__[SHIFT]__[/], which is 3 keys at the same time. To keep fingers from tripping over each other, 800 users can insert another macro for the [/] key:

/‹=›[ESC] ‹[CONTROL]__[G]›?

A [Return] is not necessary following this macro. We are not executing a command like we were previously when loading that TEXTPRO.MAX macro. (Review Part 1 if you don't understand this.) Again, [ESC] must be pressed to enter TextPRO's ESCape set mode before typing a CONTROL character. This time, [SELECT] must be pressed while typing [CONTROL]__[G] to get the INVERSE character. ‹[CONTROL]__[G]› is a special macro command key. All special macro command keys are ‹inverse› CONTROL characters. ‹[CONTROL]__[G]› means "GOTO" in TextPRO. It acts like the same command in BASIC, but instead of a line number, it links to another macro. In this case it is telling TextPRO to GOTO the ? macro, which is also the [HELP] key. This allows 800 users to press [OPTION]__[/] instead of [OPTION]__[SHIFT]__ [/]. 800 owners may want to add this simple macro to all their macros that define the ? macro for the [HELP] key.

Why Have More Than One Macro Set?

It's true you can fit a lot of macro commands into a 2k buffer, and that you have a lot of keys you can use. But it becomes difficult to remember what all those macro keys are for. And some of the keys are a handful of fingers to press. (e.g. [OPTION]__[SELECT]__[SHIFT]__[6] for inverse ‹&›) By defining different macros for specific tasks, you can call them from disk only when needed so as not to clutter the macro buffer. You can then return to your default macro set by linking with the [HELP] key like we did in DEMO.MAX. In fact, you may want to load TEXTPRO.MAX directly from other macros without using any key, once their job is done. Simply tag the "[ESC] [CONTROL]__[V]TEXTPRO.MAX [Return]" command at the end of the last macro key to be used. Another advantage of "interactive" macro files is you can use the "easy" keys over again, such as [START] and the un-shifted number keys and the preselect Autorun feature.

Wrap Up

This month, we covered "interactive" macros. We've seen how macros are able to load other macros. We also looked briefly at one of TextPRO's special macro command keys, ‹[CONTROL]__[G]› which acts as a "GOTO." Next month, in Part 3, we'll cover all nine special macro command keys in detail.

[Editor's Note: If you are using TEXTPRO.MAX from the TPX50X.ARC archive, it will not behave quite the same as the TEXTPRO.MAX described in this series of articles. You will have to go through an intermediate menu and type the ".MAX" extension. The TEXTPRO.MAX referred to in this series is from the TextPRO 4.56 archive. It is called MAIN.MAX and must be renamed "TEXTPRO.MAX" to autoload as described in the TextPRO instructions. —RR]

More on TextPRO's "ESCape Set" Mode

TextPRO allows you to edit graphic characters directly in a text file using the "ESCape Set" mode. This has several practical uses. One of the most handy applications for an 8-bit Atarian is cleaning up ASCII files. ASCII uses a decimal 13 or [CONTROL]__[M] for a Carriage Return (CR) and decimal 10 or [CONTROL]__[J] for a Line Feed (LF). When you view an ASCII file in TextPRO, these CR's and LF's will appear as blocky CONTROL characters. On the other hand, Atari 8-bit computers speak ATASCII, which uses a decimal 155 as a combination LF and CR.

It's an easy matter to convert ASCII characters into ATASCII using TextPRO's Global Search and Replace command along with the "ESCape Set" mode. First type the Global Search and Replace command, [CONTROL]__[G], while in the editor with an ASCII file. The cursor will move to the status line right after "Find:." Now, hit the Escape key, [ESC], and type [CONTROL]__[M]. Hit [ESC] again and type [CONTROL]__[J]. Notice that the funny characters in the status line look just like the ones in the ASCII text file. Now hit [RETURN]. "Change to:" should now appear in the status line. Hit [ESC] again and type [CONTROL]__[+]. Notice that this is the same symbol used by TextPRO as the [RETURN] character. Hit [RETURN]. TextPRO will now replace all those nasty ASCII CR's and LF's with civilized ATASCII CR/LF's.

—RR

Creative Solutions
Part II
By Steve Kiepe

Data-Stitch, Inc.

Computerized Embroidery & Design Systems

In this second installment in a series covering the utilization of the Atari ST/TT family of computers to enhance personal and professional productivity, we'll take a look at an industry that has exceptional success potential for both newly emerging entrepreneurs and established business persons alike. The industry is the computerized embroidery business, and the company on which we will focus is Data-Stitch, Inc. of Aledo, Texas.

A Short History Lesson

The encyclopedia reports that embroidery has been around since prehistoric times. It probably got its start when a cave-mother stitched a few boar's teeth on her daughter's saber-tooth tiger-skin shirt in an attempt to grab the attention of the teen-aged neanderthal working at the local mastodon-burger outlet. The embroidery business started centuries later when Cleopatra sent out Mark Antony's tunic to be emblazoned with her logo, in case he forgot whom he belonged to (she had a really nice asp...). I can't verify either of these stories, but that's not really relevant. For some reason, people like to add all sorts of symbols to their clothing, either as decoration, signs of possession, or cheap advertizing gimmicks. The pinnacle of style for those of us who are "financially stressed" is to pay big money to wear a rich guy's name on the seat of our pants (a little Ralph Lauren on your hindquarters?) or "Bill the Cat" on your polo shirt.

Until this century, most embroidery was done by hand or on manually operated sewing/embroidery machines, completed as piece work by skilled and semi-skilled labor. The computer revolution has produced a capability in which anyone, with the right equipment, motivation, knowledge of materials, and some artistic talent can turn out hundreds, or even thousands, of uniformly produced intricate designs. The creative limits are bounded only by the money the buyer has to spend, and the size of the medium to be worked. The Atari ST/TT computers have found a place in this industry, and have proven to be phenomenally effective at it.

And Now, Our Featured Company

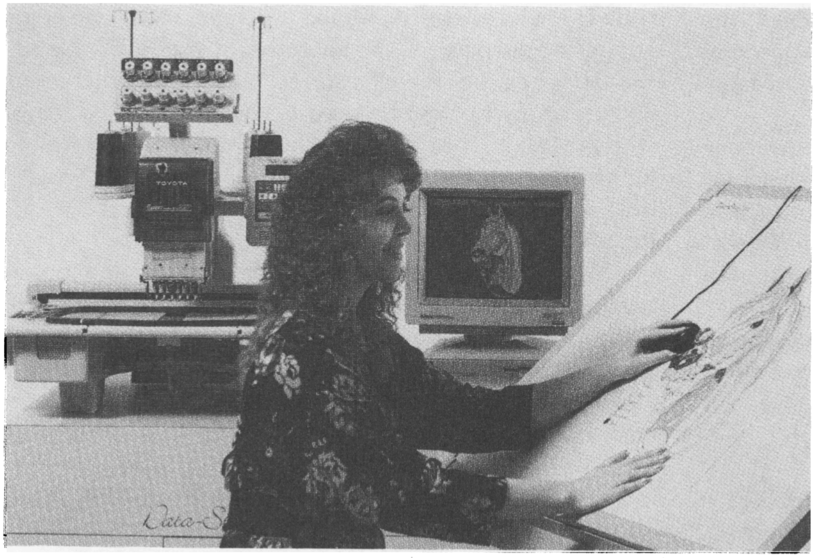
Data-Stitch, Incorporated, was founded in 1988 as a computerized embroidery machine distributor. Today, Data-Stitch has two offices, one in Texas and the other in California, and they distribute machines throughout the world including Canada, Australia, Europe, and South America. Data-Stitch is presided over by Larry Lawley, and has about 20 employees company wide. Data-Stitch does over three million dollars a year in business, and the 1993 outlook is even better. For this article, I interviewed Roy Garland III, a Data-Stitch technical, sales, and customer representative. Data-Stitch sells several "bundles" of differently configured packages, all designed to operate around the Atari ST/TT computers.

The heart of an embroidery system is the embroidery machine. There are numerous companies that produce these expensive spinoffs of the commercial sewing machine including makers such as Barudan, Malco Star, Ultramatic, Toyota, Happy, and others. The embroidery machine can be single or multi-head; the head designation refers to how many garments can be produced by a single machine at one time. A single head machine can produce one garment, with a multi-head producing as many as 20 garments at once. A single head machine starts around $14,500 with multi-head machines at $90,000 or more.

An Enhanced Atari TT Brain

The mind of the computerized embroidery system is, of course, the computer. Data-Stitch's computers are primarily Atari TT's which have been extensively modified by Rick Weyrauch of the Software Cafe. Rick starts with a stock TT with four megabytes of ST RAM and then puts in several modifications, including an enhancement to the line driver for the parallel port. This allows the TT to drive embroidery machines through as much as 200 feet of parallel cable, necessary when one TT drives multiple machines simultaneously. All Data-Stitch's TT's are equipped with Dover Research's ISAC color card, which gives color resolutions to 1024 x 768 pixels, and are equipped with 14-, 16-, or 20-inch color monitors.

Rick also wrote the custom software that ties the whole system together. The interface is somewhat like *AutoCAD*, with operators producing wire-line outlines of the desired embroidery object, and then specifying the fill type and pattern to be used. Some designs are obtained from commercial design houses called "punch houses" that retail their designs to the various embroidery shops. Other designs are created directly by the operator of the Data-Stitch system. The Data-Stitch software takes a design saved in an industry standard format, converts it for Atari TT use,



and then allows manipulation and production on the Data-Stitch machines.

For many years, punch-house designs were recorded on a paper-punch tape, similar to the ticker tape of the early 1920's. Paper tapes are now read by a paper tape reader, which transfers the data onto floppy disk, greatly reducing required storage space while increasing safety and longevity of the designs. Users of paper tape may have entire warehouses dedicated to tape storage, but these are rapidly being converted to magnetic media.

Artistic Touch Required

Lest anyone get the idea that creating a design is a simple matter of scanning in an image, outlining it, and then reproducing it in thread, the art of embroidery is far more complex. Embroidery has texture, both as a reflection of thread thickness and composition, and also resulting from the stitch pattern used for area fill. There are many stitch types, including running stitches, which have uniform stitch lengths and fill an area without concern for pattern; flat or satin stitches, which have long thread strands that run from end to end of a fill area without breaks in the middle; and fill stitches that produce a uniform pattern, such as creating a brick-like pattern in the fill area.

In addition to the vagaries of stitching, there is a required knowledge of the material being embroidered and the effect of various stitch types on it. Too many satin stitches oriented in parallel may result in the underlying material being "pulled," which then distorts the end product. Embroidery is an art to which computers have added science for ease of production. Nonetheless, the creator must have a solid knowledge of his medium if he is to succeed.

A Data-Stitch artist has the ability to create unique designs quickly and efficiently. Some Data-Stitch bundles include a 20 x 24 inch or larger graphics tablet, which an operator uses to trace or draw a wire frame outline of the desired pattern. The operator then adds desired outline and fill colors, patterns, orientation, size and other information, lets the computer crunch on it a bit, and then out comes the finished product.

This ability to design in-house provides an advantage over businesses that must buy products from punch houses. Punch-houses typically charge between $16 to $25 per thousand stitches to create a design. A ball cap usually runs five to seven thousand stitches per logo. Jackets may run 30,000 stitches or more. This means the setup cost for a ball cap could vary from $80 to $175 for a single design while a setup for a jacket could cost more than $800. For a small corporation with a limited production run, this could raise the unit cost of an embroidered product to a point where it is not cost effective to produce.

A wide selection of inexpensive generic designs are also available from "stock-design clubs." However, the ability to easily and economically render the customer's design in-house is one of Data-Stitch's greatest strengths.

Growth Industry

The computerized embroidery business is a rapidly growing enterprise suitable for both "mom and pop" storefronts or large commercial operations. Data-Stitch sells three general bundles of machine/software combination to its customers.

- The all inclusive "STitchitizer," which consists of a graphics tablet, a modified Atari TT, software, and a single head embroidery machine, can cost $32,450 and up.
- The "Data Master," a complete Atari TT and software package allowing editing and lettering of pre-created designs, retails for around $9000.
- The "Stitch Transfer System," a system used to transfer punch house designs to an embroidery machine, consists of software and modified Atari 1040ST/Mega STE's for around $8,000.

For those of you who may still be hesitating before reaching for your checkbooks to embark on a new career, be aware that Data-Stitch also provides on-site training with each purchase, three days for STitchitizer purchasers or two days for Data Master buyers. The computers come with a one year warranty and the embroidery machines with a six month warranty.

So far, we've explored what a computerized embroidery machine is, what the Atari configurations are, and what it costs to get started; but the question remains, "Why use Atari?" Roy acknowledged that there is heavy competition from MS-DOS systems, but from Data-Stitch's perspective, the Atari-based system has no peer.

- o The system is user friendly, allowing a designer to concentrate on artful design, not the computer interface;
- o The Atari TT-based system is fast, so much so there is no requirement to run in TT RAM (FAST RAM); and
- o The system is inexpensive, especially when compared to MS-DOS based systems that can run three times as much or more.

That Game Machine Association (Again)

Roy noted that one of his greatest difficulties in selling Data-Stitch systems is the "game machine" identification associated with Atari computers. This rapidly disappears after a short trial period, and he reported no customers who have subsequently changed over to another system; in fact, most buyers simply continue to upgrade and stay with Atari (see associated article). A common concern expressed by potential customers is the perceived lack of accounting software or industry standard word processing. As Roy points out, however, these machines will be so valuable to their owners in their use for embroidery, that there is little likelihood of them being used for any other purpose. If the customer wants a PC for accounting, so be it. Of course, that admonishment doesn't apply to Roy; he uses his Atari Mega ST4 and DMC's *Calamus* to produce the company's advertizing for trade magazines.

High-Tech Future Plans

What of the future for Data-Stitch? Roy noted that they are working on several growth products. Software Cafe and Data-Stitch have recently finished an Atari TT-based vinyl cutting system, and are now looking at an engraving system and possibly a laser-based cutting system. Many embroiderers will attach pre-cut fabric letters and shapes to an underlying material, creating a contrasting or multi-layered effect. Rather than machine cut these individual letters, Data-Stitch is exploring the use an a high-power laser to cut 12 or more layers of material at the same time. That doesn't sound like a function for a "game machine" to me!

[For further information, contact Data-Stitch, Inc. (11255 Highway 80 West, #102, Aledo, TX 76008. Phones: 817-244-0171; 800-765-1004) or Data-Stitch West (15375 Barranca Parkway, Suite I-103, Irvine, CA 92718. Phone: 714-453-9111).]

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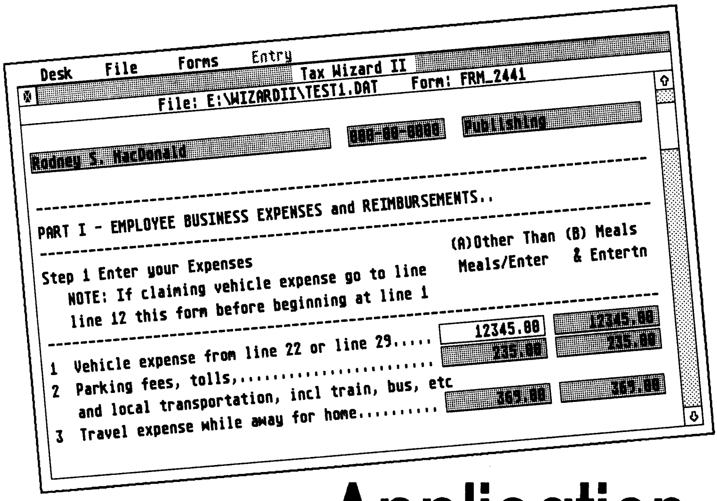

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PART I - EMPLOYEE BUSINESS EXPENSES and REIMBURSEMENTS..

Step 1 Enter your Expenses (A)Other Than Meals/Enter (B) Meals & Entertn

NOTE: If claiming vehicle expense go to line line 12 this form before beginning at line 1

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A Skeptic's Story

Steve Zeller of Maryland Monogram is the ultimate Atari skeptic turned convert. A disillusioned Macintosh user, his Macintosh-based embroidery system was converted to an Atari–driven system and his Macintosh sold for scrap. Maryland Monogram is not a Mom and Pop type outlet, rather it is only one of three co-owned businesses, including Embroidery Warehouse (another Atari-based embroidery house) and ASCO Products, a manufacturer of baseball cap "blanks." The selection of an appropriate "brain" for the embroidery machines in their outlets was a critical business decision.

Steve is the manager at Maryland Monogram, and with Embroidery Warehouse, they employ 11 workers and two Atari TT's between them. Maryland Monogram is a basic retail embroidery store, catering to smaller customer requests that are output on a single multi-head machine. Embroidery Warehouse operates on a larger scale, with three multi-head embroidery machines simultaneously slaved to a single Atari TT computer. Between the two stores, they do hundreds of pieces per day, with customers ranging from an unnamed "alcoholic beverage distributor" who required production of 5,000 embroidered shirts in just a few days, to patches for NASA and the U.S. Secret Service.

It Makes Money!

Steve has been in the embroidery business 11 years. He moved to computerized embroidery on the Macintosh system five years ago, and converted to a Data-Stitch Atari TT system two years ago. Maryland Monogram was so happy with the system they become Data-Stitch distributors themselves. Maryland Monogram has tried multiple systems, including Hewlett Packard and other MS-DOS based systems, but only the Atari system provided the ease of use and function that they desired. As Steve said "...you point, you click, you do what the picture says. It couldn't be easier."

Maryland Monogram's systems run constantly from the start of the workday to its end, frequently from 7:00 am to midnight. The Atari-based systems were bought only for embroidery and are not used for any other purpose. Utility is the focus for Maryland Monogram et al, and the Data-Stitch system fills its function well. In Steve's opinion, the Data-Stitch system and its Atari TT brain is "THE MACHINE" to use, with the best combination of economy, function, and speed in the business. In Steve's view, "It makes money, period."

An Extension of the Artist

Embroidery is an art to the employees of Maryland Monogram. In a manner much akin to the oil painting artist who doesn't want to worry about the interface between his hand, the brush, and the canvas, embroidery artists don't want to think about using a computer. They want to concentrate on the art itself, the design work. The Data-Stitch system lets them do that. Many of their designs are produced in-house with some provided by contract. They do utilize paper tape readers on occasion to convert punch house tapes to floppy, but the entire industry is converting to the new format so paper tape is rapidly becoming a thing of the past.

Steve acknowledged his initial resistance to giving the Data-Stitch system a try after he found out about its Atari heritage. Data-Stitch's product demonstration convinced him, however, and he sees no turning back. His only complaint with Atari computers is the monitors; Steve felt the older Atari TT monitors were better products than those available now. Maryland Monogram does have one major advantage over most other Atari users; they are located only a few doors away from Toad Computers!

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Small World

Eric Does Nikola

(c) 1992 by David Small

My favorite part of the entire 68030 SST accelerator project was writing "Interludes," short essays to break up the monotony of the manual. They come between each chapter of the SST manual.

While we've talked about Nikola Tesla before, that was when I first began writing for *Current Notes*, in September and October 1987. Back then, the Spectre 128 was a year away from existing, and the GCR two years away.

Many of our SST users have written us specifically about this interlude. This particular Interlude is the best I have ever written.

* * * *

Last year, my son Eric, who just turned 10, had a school project called "The Famous Person's Tea." This is a yearly event in which each student selects a Famous Person from history, dresses as that person, and gives a 10 minute memorized on-stage speech about that person to an audience of around 200 parents and relatives.

I know adults who would rather do anything than give a speech to 200 people! Dale Carnegie did research and found that fear of public speaking is one of the greatest fears of people, exceeding things like divorce or slow death by torture. And it is so very hard, as a parent, to watch your child out there on stage, maybe ready to freeze up or forget the speech or, in general, do what adults have been known to do in this situation. (I help teach public speaking; I have seen grown adults break into tears and run out of the room while giving a speech to a mere 30 people!)

I am not that sure I agree with the school giving this as an assignment; not all the kids made it through their presentation, for instance, and that is a hard thing to overcome later.

So my son came to me and said he was having trouble picking a Famous Person. "Dad, who do you think is the most famous person?"

I suppose other people might say Leonardo da Vinci or Einstein or FDR or Oliver North or Nelson Mandela or Boris Yeltsin or Madonna (it takes all kinds, okay?). But without an instant's hesitation, I said, "Nikola Tesla." Here is why.

Nikola Tesla

99% of the people in the world have never heard of Tesla. The remaining 1% hold him in the *highest* of respect. Let me tell you why.

Tesla did his work in the late 1800's. Among other things, Tesla invented and helped market, over Tom Edison's strong objections, Alternating Current, A.C. current, as it is called. Edison wanted D.C. current. Because Tesla won, you have the electricity you're used to, at your house and office, and you have computers. A.C. can be sent thousands of miles, stepped up and down in voltage, sent very efficiently (via Tesla's invention, 3-phase power.) Tesla holds the invention / patents for things like A.C. generators, transformers, the A.C. motor (think of every motor in your house), and so forth.

Did I mention Tesla invented radio? Most people think Marconi did this; in 1943, the Supreme Court ruled Tesla's patent overrode Marconi's. By this time Tesla was gone, which will tell you all I think about the pace of the law. In the early 1900's he demonstrated radio-controlled ships to the Navy, for instance.

Tesla was from Serbo-Croatia, thence called Yugoslavia, and now, most sadly, in the midst of a civil war to split back to Serbo-Croatia. (There is a highly regarded Nikola Tesla Museum in Belgrade; it is among my dearest wishes to visit it!! He is a national hero there, justly.) Tesla came to the United States to work for Edison with this recommendation from the Paris office of General Electric:

> "Dear Mr. Edison:
>
> There are two real geniuses in the world. You are one. The young man who gave you this letter is the other."

Tesla did a job for Edison and was offered a $25,000 bonus if he could first do it (it was regarded as impossible) and second, do it fast. It was soon complete, and Edison, who had made sure not to put the promise in writing, didn't pay; he simply said, "You don't understand our American humor, Tesla."

Very funny. Tesla quit on the spot, an event that cost Edison billions in the long run, and spent time literally ditch-digging. But it worked out; the foreman of the ditch-digging crew knew George Westinghouse, another electrical pioneer.

In the late 1800's, Tesla teamed with George Westinghouse, who founded Westinghouse, to bitterly oppose Tom Edison's General Electric, that was pushing D.C. power. D.C. is the worst; for instance, you'd need to live within 50 miles of a power plant to even have electricity, and people in rural areas could not have power. A.C. can go thousands of miles with no trouble. Edison was much more well known than Tesla (which still remains true today). And "The War of the Currents" was played out in the 1880's to determine if mankind would have the limited Edison D.C. or the no-limits Tesla A.C.

It was played dirty, like many politics. Through a political crony Edison arranged for the first electric chair, at

Sing-Sing prison, to use A.C., then trumpeted about how "deadly" A.C. was; "After all, they use it at Sing-Sing." (In truth D.C. would work equally well). "If you install A.C. in your house, within a month someone will die of it," Edison said. You and I use it all the time today. (In reality, D.C. and low-frequency A.C. are equally deadly; don't get either one into your body.) High-frequency A.C. is pretty harmless.

Nikola Tesla was furious at this sort of dishonesty—and had a little personal score to settle, too. So at a World's Fair Exposition, he won a contract to do all the lighting (a new thing!) with A.C., and at hundreds of demonstrations, Tesla passed A.C. current through his body, and with it lit hundreds of light bulbs, melted wires, spun motors, and many other things. Thus he proved it was "not deadly."

The secret? Tesla did this by using high frequency A.C., instead of low frequency, the 50/60 Hz used now; for heaven's sakes, don't plug yourself into your house power! (But see below on the Washington show.) And while Edison was a home-grown folk hero and Tesla was some unknown immigrant, gradually, Tesla's style won people over.

But it was rough on Tesla and Westinghouse. Tesla had licensed his many patents to Westinghouse for a dollar per horsepower; Westinghouse ran desperately low on money during a particularly bad Edison assault. Westinghouse, in despair, came and talked to Tesla, hoping to renegotiate to save Westinghouse Electric. Tesla gravely listened to the money problems, got out his license agreement with Westinghouse from the safe, and said something like, "Mr. Westinghouse, when no one else would listen to me, you believed in me. Give my A.C. power to the world."

And he tore up the license agreement, giving Westinghouse A.C. power for free.

Because of this, Westinghouse, A.C. power, and the electricity you can so handily use today survived. Because of this, Tesla later ran out of money and faded into obscurity and even poverty. (Edison? General Electric gave it up, switched to A.C. power, and is still around; Edison is regarded as a hero. They make movies about Edison... sigh... although there is one now about Tesla (not real good, in all honesty; I hoped for more)).

Those patents are beyond estimation in value today. Hundreds of billions of dollars of A.C. power, and the derivatives of it, exist; it is the world's power system. So in a vital way, Tesla *won*, but at a terrible sacrifice.

Yes, Tesla could have negotiated with someone like Edison for the A.C. patents; instead, he had honor.

There is no question in my mind that Nikola Tesla is among the most *vitally important*, unknown heroes in history.

I will guarantee you a fascinating time if you read the books about Tesla in a library. I am at best giving you the slightest bit about Tesla in this Interlude; there is much, much more.

Tesla's work is still of extreme significance to us today. The "Tesla Coil," a high frequency, high voltage resonant transformer, which I demonstrated at the Washington Atari show, makes six-inch sparks I can draw to my finger without feeling any shock; it's high-frequency A.C. and never penetrates the skin. In fact, we lit up neon lights through a chain of four people holding hands, and lit up florescent light bulbs by just holding them in our hands, no connection needed. I have never run a more crowded, popular show booth!

Nearly every CRT (including the ones for the ST) uses a Tesla Coil variant to generate high voltage for the picture tube. Tesla's work provides the power for your life in a variety of ways, from power generators ("alternators"in your car) to transformers to transmission systems to the motors in your house to other things I have no room to write about. You don't know it, but Tesla has a heck of a lot more influence on your life than Edison does. Tesla changed the world.

And, as I've written about in *Current Notes*, Tesla's work can be implemented today in a variety of useful ways. For instance, Tesla set up an electrical oscillation involving the entire planet in 1899 (the ground is extremely conductive, if you didn't know, especially the molten-iron core of the planet). This is the only known time this has been done. It was part of an experiment to provide free power to the world; in Tesla's dream, drawing power would just require hammering a spike into the ground anywhere, connecting to it, and turning on what you wanted to use. No wires back to some generator somewhere; the generator uses the ground for its wire! It could still be done and there are still people trying. Tesla's work also provides a viable method of quickly regenerating the ozone layer, which chlorine molecules (CFC's) are busy nibbling away at; Tesla even wrote specific directions on how to do it.

I know these last two sound pretty much like science fiction. But given as how what Tesla did *works*, and I'm writing this on a computer depending on many Tesla inventions, I Believe. Tesla was in the process of wiring up the power system, at Wardebnclyffe, when he ran out of money; it was all designed.

Back to Eric

Eric had never even heard of Tesla, like most folks. So I drove my son just 50 miles south, to Colorado Springs, Colorado, where Tesla had his laboratory nearly a hundred years ago. I showed him the beautiful memorial sign erected near the spot by the Tesla Society.

And I told him the magnificent story of the night in summer 1899 when Tesla set the world's record for man-generated-lightning: 120 feet, 40 meters. (The record still stands today; the thunder from his lightning bolts was heard 22 miles away, in Cripple Creek).

I told him about Edison (whom Eric now has grinding contempt for!). I told him about Tesla giving up his patent royalty money so people could have electricity, which is among the major reasons why life has improved so much for everyone since Tesla began inventing... over 100 years ago.

By the end of our trip to Colorado Springs, as I pointed out where it had all happened, Eric's eyes shone with fire, and I knew in my heart that we had another soul in the family determined to push the envelope. Wait another 10 years, folks.

And he said, "Dad, I want to be Nikola Tesla at the Famous Person's Tea."

(Continued on page 53.)

Atari in the STicks

Henry K. van Eyken

The PERSONAL in Personal Computing

The personal computer never was all that personal other than that many of them are personal property. But it is not (yet) personal where it ought to count most; it is not personal in that it helps our thinking much in everyday problem situations. The best we can say for it is that it can do certain things fast, as it should, what with its heritage rooted in data processing.

However, our everyday affairs rarely include manipulating large sets of narrowly categorized data. More often we are concerned with interactions between large numbers of numerical and non-numerical facts that life presents us with. Our personal interests are characterized more by breadth than by depth.

* * * * *

I am pretty happy with my STe and it serves me well. And my grandchildren love it, too, for the fun it gives them. Adriana sings heartily along with Dorothy Brumleve's KIDPROGS.PRG. You can hear her happy voice throughout the house. And Eric loves to shoot himself a swath through swarms of oncoming Megaroids. To tell you the truth, I, too, play an occasional game though seldom anything as strenuous as emulating an ace in or beyond the blue sky.

My STe helps me work and think and tinker and keep me mentally alive in doing all that. It is part tool and part an exciting part a window on future ways of doing things. It is a fine, 4-meg instrument with a spacious RAM disk. Sure, it still is not functioning the way I want it to, but that probably has less to do with the machine than with me knowing too little (or not the right things) about it. Desired information can be hard to come by here in the sticks.

One tough challenge is to develop the kind of versatility that one may expect from a truly personal computer. In the process, I have gradually shifted some of the burden and clutter from the top of my old, wooden desk to GEM's electronic Desktop. Thanks to my *1st Word Plus* most of my writing made that move a long time ago. And an antiquated version of *Phasar* has helped me doing a far better job of bookkeeping than I alone was ever capable of or had the patience for.

Calculations, on the other hand, were rather slow in making the move from those already so efficient, handheld calculators to my STe. The reason for this tardiness was the kind of tools my software provided. They were made to look like handheld calculators, but without being as convenient. Using mouse-clicks to push on-screen buttons seems to me a silly thing to do. But that has changed now that the much more flexible *Fleabyte* calculators are learning to be increasingly helpful and get along better with other programs in my STe's still limited "multitasking" environment.

Multitasking with desktop accessories works, but only if one has satisfactory accessory programs. I have tried *MultiGEM*, but it was an expensive disappointment. I have tried *MiNT 0.95* ("Mint-is-Not-TOS") down loaded from GEnie, but, to this amateur, it seemed more like a tool for data processing operations. I had hoped to download the proper *MultiTOS* from GEnie, as Bob Brodie once held out Atari might allow us to do, but now we have a stand-off: they only want to sell it whereas I want to see *MultiTOS* in action before buying it. This is hard without anybody around to show me just what it does.

Drawing on-screen is an engrossing delight, even though I am no artist. I have toyed with powerful European drawing and drafting programs, but I keep on coming back to that magnificent wonder of the ST's early years, my old-fashioned *DEGAS Elite* by Tom Hudson (whatever happened to him?). Sure enough, much of my doodling is still done more comfortably on a scrap of paper than on-screen as is most of my hasty scribbling. Maybe it is the natural order of things that those small attempts at visualizing my thoughts belong more on paper than on a monitor. Although the personal computer may be entering adulthood, true personal computing is still in its infancy and has not found its niche yet. Skeptics say it never will.

Among those skeptics is that perceptive and influential weekly, "The Economist." In its issue of October 17, 1992, I found a leader headed, "The Homeless PC Personal computers have never found a place in the home. They never will." The principal reason given is unfriendliness. "Out of the office and into the home office is about as far as the personal computer has been able to get," writes the weekly. Another reason given by the article: a lack of compelling software for home use. "Compelling software" is software that sells computers. Examples: *WordPerfect*, *dBASE*, and *Lotus 1-2-3* because these sell computers for office use.

What is compelling for the office may not be as compelling for personal use. And truly personal computing may not be what software vendors like it to be: a place with an unsatiable appetite for lots and lots of high-priced commercial software. There already is much for users to choose from, even for the Atari with its small share of the computer market: simple and elaborate word processors, data bases, spreadsheets, desktop publishing programs and their ancillary software, telecommunications software, mathematics and graphing programs, drawing, painting, sculpting, and animation programs, CADD programs, and computer languages at all levels. What power you command if you master them all!

But who can? Granted, there are good uses for each and every one of elaborate, big-name application programs. Many earn their spurs on a commercial scale in specialized areas of endeavor. And even the home computer user may have not too infrequent a use for some of them. But in truly personal computing those heavy guns are likely to make one buckle under loads of manuals and macros and assorted "quick guides" to the selfsame manuals and macros. All this must be added to our other concerns such as a spouse, kids, boss, Bob Brodie's Round-Table Conferences,whether to buy a Mac or Dave's new Spectre, taxes, car repairs, the environment, and war in Bosnia. A hobby that is supposed to provide the mind with a relaxing diversion can easily become another burden.

The purpose of *personal computing* is, aside from providing recreation, doing personal things better than by some other way and/or doing personally desirable things that can't be done otherwise. And it should especially play a significant role in lifelong education. Personal computing may help us cope in a world polluted with things vying for attention and understanding. The fact notwithstanding that personal computing may also include specialized computing relating to one's profession or as part of a hobby, it is still good to distinguish it from computing in the workplace. Failure to do so easily leads to misunderstanding and prevents efforts from being directed toward the development of truly useful personal computing.

Typically, computing at work grows in depth as it continues to specialize in detail, the detail that may provide a business with an edge on the competition. In contrast, personal computing must grow in width more than in depth. What is needed here is a variety of simple, intuitively used and readily adaptable software that cover a lot of ground in flexibly adaptive and agreeable ways. It should not emulate office computing. Too much, already, is life filled with forms and boxes and slots and fields and cells and we don't want more of that stuff if we can help it.

Let me put it another way. What does not seem to be sufficiently realized is that for home use we need to be able to run more than some single piece of masterly designed software that dominates the computer-user interface even if it is richly endowed with features for handling many eventualities. For home use it

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will be a whole slew of interacting software that will help its owner meet a myriad of, mostly immediate, diverse personal needs. In part, such assemblages will consist of programs we are already familiar with, especially the word processor. But other parts will be software designed less by professional makers of software than by subject specialists and by users themselves. Many users must, by hook or by crook, learn to program after a fashion to let them make their computers do their particular things. Truly personal computing will come about from living with it and a dogged preparedness to interact with what is for amateurs still a pretty obscure technology. I doubt that business by itself can readily provide all the things needed to make personal computing grow to maturity.

Cooperation is the keyword for the new personal computing; cooperation between the experienced and the inexperienced, between amateurs and specialists. Users must learn to enunciate their needs and developers must be sensitive to them. Their programming skills and their sense of what makes programs intuitive must combine with users' expressed wants to develop the desired electronic thinking processes. Developers must give those users who are not schooled in computer science and technology a sense of what are reasonable and feasible things to do. Business can help keeping the spirit alive by cutting out unnecessary costs, by avoiding the peddling of wares that are frustratingly inappropriate, and by being sympathetically supportive.

I see truly personal computing as a synergistic development that may well offer a profitable place for those capable of helping shape its market aspects. It seems to me that there are plenty of roots in the Atari community for such approaches to flourish. I can name many fine people without ever having met them (one good reason for staying with Atari). And a binding force like *Current Notes* is essential for selecting and directing and drawing attention to information about the purposes of personal computing as well as the ways and means by which it is fostered.

* * * * *

On my wooden desk at home lies a writing pad, right in front of me. Around it are my desktop accessories: ballpoints, pencils, eraser, liquid paper, rulers and templates, calculator and pocket computer, pencil sharpener, magnifying glasses, stapler and Scotch tape and glue sticks, post-it notes, a diary-cum-calendar, scrap paper, note books, a three-hole punch, "in" and "out" trays. Also within reach are a typewriter, telephone, textbooks, reference books. That isn't all, but enough to overload this paragraph and enough, too, for the point I wish to make: Things have grown this way because that's what seems to suit me best. I grab what I need without taking my mind off the main job at hand. And if this is a good way of working at my wooden desk, chances are that this is also a good way for working at my GEM desktop. For starters, anyway.

The most used piece of application software is the word processor. Most of the desk accessories I just listed find their equivalents built right into that word-processor. They are its "features." To further round out my on-screen toolkit, I added a calculator, a couple of memory aids, and a diary-cum-calendar. I would also like to add convenient drawing tools and quick, low-cost access to needed information.

You see, the second list is much shorter than the one in the paragraph preceding it. That's due to my STe's efficiency, and to the power of my programs and accessories. The latter include a notepad named *Ed-Hak*, a diary (Bill Aycock's *Calendar* accessory), a *Fleabyte* calculator with its simple spreadsheet capability. A wide assortment of lesser accessories may be called on thanks to my *Chameleon* from Germany. Missing, unfortunately, is a good, lightning fast drawing accessory that can transfer straight to my word-processor, but, I presume, one day even that prince will come. (I recently received a copy of *DTPaint* from Toad Computers. I had barely uttered a word and Ms Jennifer Troy knew what I was looking for!) Also, I am not ecstatic about the telecommunications tools and the gobbledygook this simple country bumpkin must master before he may benefit from those promised wonderful savings in connect time and telephone bills.

Does all this help me be more efficient? Well, if I first subtract the time needed to make my computer a really *PERSONAL* computer (and a lot of time, including wasted time, that is!), it does anyway. At least I like to think it does. Am I satisfied? Well, what do I say? This is just a simple beginning and there is a long, long way yet to go, but I do feel I am on the right track. In the process I check out just about every programmed trinket that comes my way and patiently, bit by bombs-punctuated bit, my STe is getting better. Not as fast as I would like it to, and there are indeed barriers better left to a Falcon to fly across but, together, we are getting somewhat closer to where I wish to be.

My vision of what personal computing should aim for is well away from the industry's sparkling multimedia mania. Oh, it will make use of graphics, alright, and of animation to aid our thinking through visualization. But not to dazzle, not to stifle our good sense by swamping our senses. No chaos manor for me! The computer may be a highly sophisticated tool, but I am looking for the effortless ease with which it can help me. Simplicity, not complexity, ought to be the hallmark of a tool that serves to enhance personal efficiency in both work and learning. To me, any Atari Corporation's emphasis on "personal integrated media" points to more noise and confusion in my life and that I don't need at all, at all. Already I have more media noise than I can cope with; so spare me, please. It is always interesting to see ourselves as others see us. "Multimedia needs the PC much less than the PC needs multimedia," wrote "The Economist" in response to California dreaming. It concluded that:

"Computing power will still be useful at home, but it will come from a network of tiny-chip computers working away inside televisions and video telephones, hi-fi systems and VCRs, swapping digital data with each other and performing useful household tasks like switching on ovens and paying bills .... And tomorrow's multimedia extravaganza will be showing on the HDBW (high-definition bedroom wall), not on the cramped screen of a personal computer."

Some experimentation and reflection have made me more optimistic about the future of personal computers than "The Economist" is. But it is by improving personal efficiency, by informing us and by helping us formulate better thoughts to better deal with the problems we encounter that personal computers, be they on our desks or in our shirt pockets, will ultimately earn their keep.

Now, if only I can get my hands on a *MultiTOS* that works in a way I think it ought to ...

Small World (Continued fromn Page 49.)

The Presentation

Any parent whose child has been onstage knows the heart-in-throat feeling. Eric, as a "T" ("Tesla"), was late in the presentation by alphabetical order. Every parent was brought together, all pulling for the kids to make it through their presentation, alone onstage, with a microphone. Most kids did well. But there were others; kids before Eric forgot their speech, one broke into tears!

Eric came onstage; there was a roaring in my ears of pure parental stress. He was dressed as Tesla dressed, tall, slim, in a rented tuxedo, complete with gloves, cane, and a tophat, and I got, for one moment, a warm glimpse of what my ten year old will be as a man. A voice behind me, someone I don't know, said quietly, "My God, he is handsome."

He stood there a moment, looked right out the crowd, and hesitated; my heart froze. And without a quaver in his voice, he began. He'd hesitated on purpose, to get the crowd's attention!

"My name is Nikola Tesla. I gave electricity to the world..." and so forth into his speech. He did it perfectly.

The audience listened. Sure, I'm a proud parent, but they were hushed and listened with honest interest to this amazing and true story. And at the end, they applauded and some cheered...

And as I write this, it's like it was during his talk; tears rolled down my cheeks, then and now, remembering. I don't know if I will ever be so proud of anything ever again, but the moment will sing in me forever.

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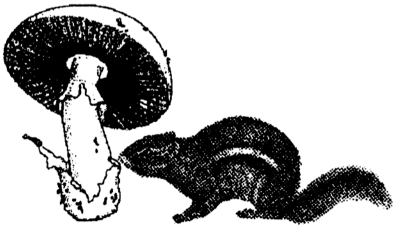


Invision Elite

Not Just Another Paint Program

Running Out of Ram by David Barkin

Over the last few months, I've had this recurring nightmare where I've been sent to computer columnist hell where the only programs I'm allowed to review are monochrome paint programs. This, of course, is an anxiety dream. Every two days I've been writing to Joe Waters asking him to let me review a cheap new product. My preferences being either a lino-type printer or, if this was unavailable, the new Falcon computer. Atypically, Joe let me know that a new product was *on the way* and to hold my excitement (and barrage of letters) in check until it arrived. Yes, you guessed it, another mono paint program, *Invision Elite* by DMC.

This first release of *Invision* lacks some features of other paint programs, has very few bugs, has a number of poorly implemented features, and I recommend it highly. Based on my reputation as a reviewer, I know most of my readers are either turning to the next article or are dashing out to purchase *Invision.*

For you hardy souls who are going to stick this review out, let me add that some of the features of *Invision* are unique and extremely powerful. As a tool for photo collage, this program contains features only found on professional level programs costing a lot more than the $129 list price of *Invision. If DMC would add the ability to save as .TIF, then with the aid of either Style* by Zocra Technologies or the "Raster Export Module" of *Calamus SL,* to enlarge and transform .TIF files to .IMG, *Invision* could be used directly for true gray-scale photo-manipulation. Since *Touch-up* by Migraph does have the ability to save .TIF files, I'm using *Invision* to create photo collages and *Touch-up* to convert them to .TIF files. *Invision* has become an integral part of my working day.

Before examining what makes this program so powerful, I'll review its basic functions. Two points to keep in mind are that *Invision* needs a meg of memory, a DS drive and a monochrome monitor. The program is compatible with any ST or TT computer. The other point is that this program has a well-implemented UNDO feature. Any action can be reversed and the last screen restored. This feature works on the entire *image and not just the screen.* After working with such an UNDO feature, I wonder how I survived without it.

Basic Features

Invision includes most, but not all, of the tools one would expect from a full featured program, including freehand drawing tools with the ability to select among 16 different brush sizes and a brush editor to create, save and load your own. This is a more powerful feature than it first appears to be because the spray paint option uses the selected brush size. You can, therefore, create special spray brushes for stipple or spray patterns. There are a number of spray and stipple options. You can set the spray pattern either as a square or a circle, how far the dots are from each other, and the color of these dots.

You can draw bezier curves with control points. This is a well-implemented feature. After selecting this option, you click the left mouse button, move the cursor to the next desired position and click again. After four clicks, a line with four control points appears. You can then grab these points with the mouse and move them until you're satisfied with the shape of the curve. By clicking again, the previously selected line or brush thickness appears following the created curve. The end point automatically becomes the starting point for a new curve.

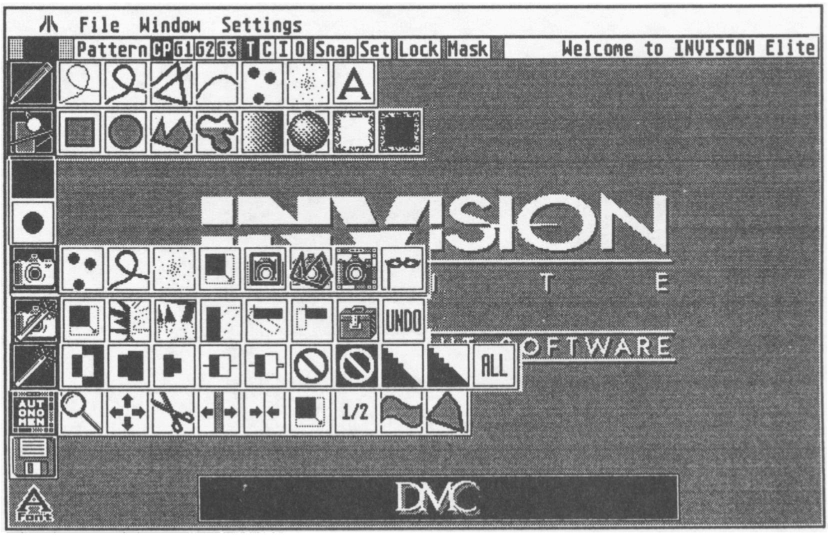

File Window Settings
Pattern CP G1 G2 G3 T C I O Snap Set Lock Mask
Welcome to INVISION Elite
A
UNDO
ALL
1/2
AUT ONO MEN
INVISION
E L I T E
SOFTWARE
DMC

Figure 1. The icons of *Invision Elite* and the sub icons they produce. Other options are available from the drop down menus.

You can draw the two basic shapes, circles and squares, in a variety of ways. By holding down the [Control] key, you draw perfect circles or perfect squares. By leaving this key out, you can draw ellipses and rectangles. You can specify the fill and whether there is a border or not. The thickness of the border is selected in the brush dialogue.

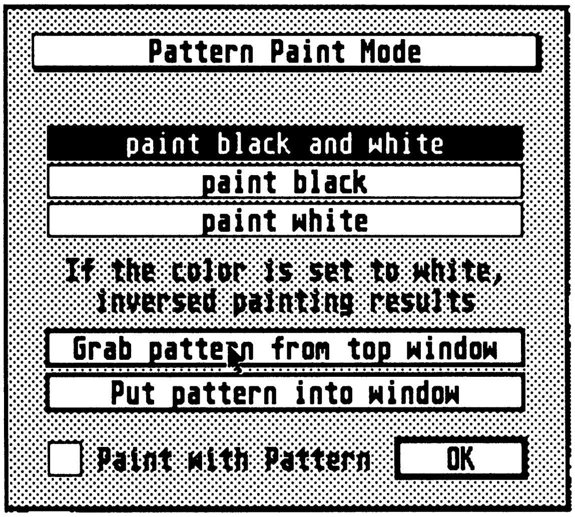
Irregular shapes can be created by selecting the appropriate icon. You then click with the mouse and straight lines are drawn, each mouse click ending that segment; a final click terminates the sequence. If you hold down the [Control] key, your lines are drawn at a 45 degree angle. All of the above drawing tools can, in turn, use the currently selected pattern as the color you're using to draw with.

You can have as many as six windows loaded into the program at once. In addition, up to 16 images can be grabbed and stored in the custom pattern option. You can rotate between the images in your windows by using the zero key or directly by using the mouse. So far, so good. While I've seen some of these features better implemented on other programs, this interface works quite well.

The Interface

There are a number of excellent monochrome paint programs for the ST and they all use their own way of going about achieving these features. Of all of these programs *Invision* is probably the easiest to learn. Consider figure 1. The entire *Invision* interface consists either of icons shown on the left or options from the drop down menus. Clicking one of these icons activates the features shown.

To make learning the program even easier, verbal descriptions of each icon are shown in the upper right corner of the screen. The descriptions change as you move the cursor across the various icons or the subicons that spring into existence as you click on the main icon. There is also an on-line help feature whose chief virtue is a typewriter picture that shows the keyboard equivalents. Some of the icons have dialogue boxes that are activated by clicking on the icon.


Pattern Paint Mode

If the color is set to white, inversed painting results

Figure 2. The patern dialogue box showing some of the options available for using paterns.

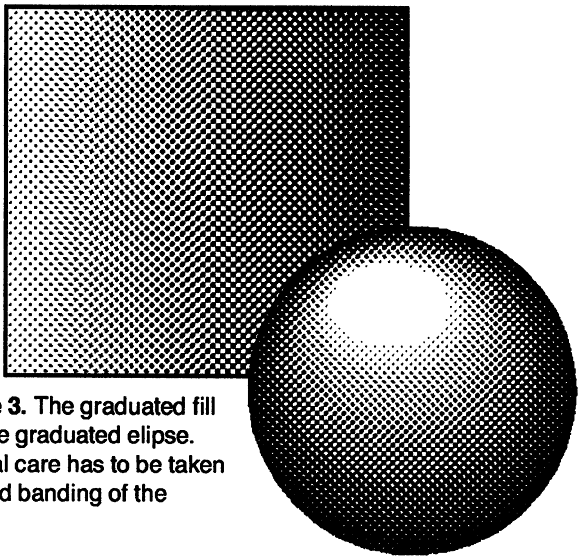


Figure 3. The graduated fill and the graduated elipse. Special care has to be taken to avoid banding of the colors.

Clicking on the brush icon brings up 16 pre-defined brushes and the option of editing and creating your own brush. You can also use this dialogue to load and save other brushes. The brush size and shape effects the stipple option.

There are also numerous ways to create locking grids for highly precise work. These can be used with the constantly changing coordinate display for quick and easy precision. *Invision* also allow direct printing from within the program.

Invision has direct printer support for the Atari Laser, Epson 9- and 24-pin dot matrix printers and Hewlett Packard printers. Printing from within a paint program is usually a very clumsy affair. Not so with this program. After selecting Print from the drop down menu, you select the printer, then the resolution. You are then presented with a window in which a box represents the size and position of your image. Simply grab this box with your mouse, position the image, and click on print. The program also supports the Atari clipboard.

So far I've described the variety of ***basic*** paint functions. But *Invision* has a host of extremely powerful options that make it unique.

Advanced Features

First, there is the dynamic implementation of patterns. There are four selections of patterns. The last three are various dither patterns from white to black with numerous shades of gray in between. The basic difference between these patterns are the fineness and smoothness of the resulting grays. The first pattern is the custom one, but the customization process is unique–you grab the pattern from the top window. This, in turn, allows you to *draw with the custom pat-*

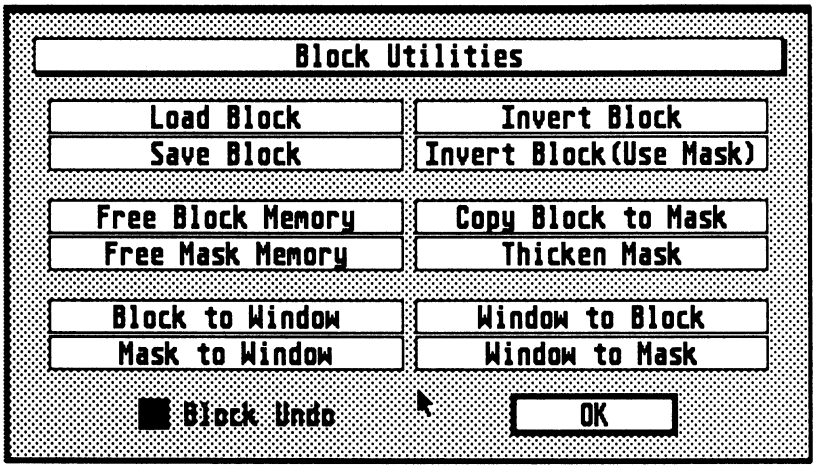


Figure 4. The block utility dialogue box.

tern. You can then switch to a different image in another window and *draw in a pattern from the first window.* This acts as a duplicating pencil. Aspects of different images can be mixed with a high degree of control over the result. The various shape selections can also take advantage of the custom pattern.

If you're using this option as a duplicating pencil, keep in mind that the entire top window is selected as a pattern. It may be necessary to clip this window and then re-select the top window as the pattern. On the other hand, you can create as many as 16 patterns during your work session and allow your creativity to soar. This is a powerful feature and one hopes DMC is working on it to improve the implementation.

I've used the expression duplicating pencil, but that does not appear to be the purpose of this option. That's simply the way I've been using it. As a pencil, it lacks the ability to select the start point in the next window. This is why it's necessary to crop the image in one window, more or less creating your own starting point for the next window. If one simply wanted to grab a particular *design* to use in other images, then this option works as described.

Another powerful feature of *Invision* is its graduated grayscale fill and creation ability. A host of irregular shapes can be created and given a three dimensional look by using this feature. Grayscales can also be defined and used to fill existing objects. Once you get the hang of this process, you have to avoid getting carried away with its ease of use.

The only problem with this option is the banding effect. By this I mean that the individual bands of gray may be visible. DMC will have to do a little work on this. To avoid the banding effect, the image must be enlarged using one of the various scale object options. See figure 3 for an example of graduated fills.

Invision has strong text handling features. It uses its own font format or *any* GDOS font. All sorts of outlining, bold, thinning and bolding options are available. While this is no word processor, the program types much like a typewriter, automatically going to the next line. It even has the ability to act as a font editor allowing you to create your own fonts. Keep text in mind while reading about blocks and mask below.

Block and Mask–Unique Features

It's in the area of block and mask manipulation that *Invision* really shines. The expression *mask* is often used to describe overlaying a pattern on top of an image in order to darken or lighten the underlying design. This is not the way *Invision* uses masks. In *Invision,* masks are created either automatically or manually. These masks act to allow pasting of blocks so that *only* the used portion of the block covers the underlying image. There is a very fine degree of control used so that it's possible to make these masks somewhat transparent to completely opaque.

Combining this feature with the block capability opens up all kinds of possibilities. Blocks can be cut out as rectangles by using the mouse to define an area of the image and then clicking again to create your block. You can define irregular areas by selecting this option and then clicking along the area you wish to cut out. This is done with straight lines so that curved areas must use very short lines. You can create up to 128 lines in this option. Although this may appear limited, you'll be surprised how efficiently this option works. After you're done cutting out this area, a mask *is automatically created.* You can shut off the mask, but the irregular block allows the easy creation of photo collage. There are other programs that allow this kind of block manipulation. What makes *Invision* unique is that these options can use the entire page for these actions and not just the screen.

Other features available from the block options are scaling and distorting the block. You can also paint with the block. By creating a very small block, this feature acts very much like a brush. In fact, the various writing modes (besides replace) of the program are only available when you are using one of the block options. These writing modes include either Cover (replace), Transparent, Inverse (when you draw with black on a black area it becomes white or drawing with white on a white area becomes black with various degrees of difference when working with gray), and Overlap, which draws only where your block and underlying image overlap.

There are various ways to insert or delete space inside an image. You can also rotate and mirror blocks. If the rotating is done in ninety degree steps the process is very quick. If you specify rotation in arbitrary degrees, then you are going to have a lot of time for catching up on your reading. If the file is large enough, entire novels and encyclopedias can be devoured. Another powerful feature of the block and mask functions is the capability of saving the block *with* the mask. You can directly edit the mask, thus customizing it for a specific job. In other words, once you've created a block that you're happy with, it can be saved and used again on another day for a different job. This ability to work on the entire virtual page instead of just on the screen is what makes *Invision* such a unique paint program.

This masking ability also works with the text option. Text can be pasted onto an image so that only *the text itself* is pasted onto the image. In practice, this produces the same result as if you were working with hard copy on a designing board.

There are other powerful features of the program. When working with line images, you can use anti-aliasing tools to smooth transitions when an image is enlarged. This feature removes the jaggies from raster images. Examples of this are in figures 2 and 4. These are screen captures that were imported into *Invision*, enlarged and then, after using the smooth option, re-saved.

You can bend an image either vertically or horizontally. Once selected, this option works by the automatic creation of either a vertical or horizontal line, which is actually a bezier curve with control points. You grab these points with your mouse and move them to a desired location, After clicking again, a dialogue box asks if you are happy with your work. If you click OK the image is bent in the desired direction.

Problems and Bugs

What are the problems with *Invision*? This is a very solid program, but it's easy to see that it is the first version. Almost none of the parameters can be saved. Many of the options, from loading your files to specifying where your viewpoint of the block is, must be set each time you use the program. While there is a powerful zoom function, it is more or less limited to being a pixel editor.

Although you can manipulate the entire page, you can't see the entire page, only a one-to-one screen is visible and, while effects may take place over the entire image, you can only see the visible screen. You can view your entire page to see the present image, but this is a viewing option only. The one compensation for this is *Invision's* method for scrolling through the page. Just hold down the right mouse button and move the cursor. You will *fly* through your image. This feature is very well implemented and takes a bit of getting used to, but it works great.

One problem with the bend image option is that, when you are working with photographs, the control points get lost. Just where the heck are those tiny little cross's in the mass of gray? The workaround I use is to create a new page the same size as the old and, presto, there's the same bezier line. By lining up the two images so that clicking between screens show the same spot, I can find my missing control point. DMC should give this more thought. To avoid banding of graduated fills, the image must be enlarged; this is another area of the program that can use refinement.

Invision allows the loading and saving of .IMG, Degas formats, MacPaint, .GIF and .ROI. Degas and .GIF color pictures are converted to black and white. It's possible to control this color conversion process. But *Invision* cannot save in .GIF. In other words, it cannot be used to create true grayscale pictures.

Invision can also import .CVG vector files. This has become a common vector format for the ST world. While these options are fairly limited, hopefully as time goes on, DMC will expand them.

Bugs that I've found include occasional memory problems when too much work has been done with large blocks. This is a minor problem. Some complex CVG files crashed the program. The manual, to my surprise, is readable and covers the entire program. This program has more possibilities than the authors thought of, but this is a common facet of any good program. The manual comes in a spiral binding. Once I cut this binding out and installed fasteners, it even became easy to turn the pages.

All in all, as I stated before, I highly recommend this program. While it has some clumsiness of implementation, its simplicity more than compensates for these problems. DMC regards this as an ongoing product and they are hoping to add a number of new features. No other program in its price range has such powerful block and mask features. I say this so emphatically because, while manipulation of individual screens may be a lot of fun, it doesn't really enhance the usefulness of a program. While other programs have more block features, these features are implemented only on the working screen.

Another problem with the block mode of other paint programs is that they will not mask out the parts of photographs that they turn into blocks. In other words, parts of the photograph are transparent. The only exception to this is *Touch-up* by *Migraph* which has a lasso mode which will, in effect, mask out the created lasso. Unfortunately, this option works only in a very limited way on the working screen. *Invision*, on the other hand, allows you to manipulate the entire image in all its writing modes as blocks and with blocks, with line images or photographs.

The other big plus to *Invision* is its text handling ability. Text manipulation with masking gives *Invision* an edge. *Megapaint, Arabesque* and *Touch-up* are superior, strictly from the paint program point of view, although *Megapaint* and *Arabesque* both have powerful vector drawing programs built in.

Next month I'm going to take a break from photo manipulation and do a review of using type with the computer and the purpose of type. Until then, enjoy!

GEnie® NOTES

Spring has finally arrived here in Toronto. The birds are returning to our fair city. Can the Falcons be far behind? ‹grin› I sure hope not! Hope springs eternal at this time of year. From recent activity in the ST RoundTable, it seems many folks are hopeful that the second coming of Atari will soon be in sight. In this month's column, we have our usual RTC Highlights from Brian Harvey, the first GEnie Tips article, and our regular spotlights, this month featuring user Doug Walter and developer John Eidsvoog. Larry Duke will be back next month with a new article on the ST Library.

RTC Highlights

by Brian Harvey

Well, another month has passed, and very quickly, in the ATARI ST RT (Round Table). This month I will discuss two Roundtable Conferences (RTC's). The Two World Software (TWS) RTC had guests Sean Dougherty and Tim Miller who had interesting news. Developers of the shareware programs *DigiPlay Plus* and *ANSITerm* had some bad tidings to tell us during their RTC. Unfortunately, TWS has ceased operations because of poor sales. Effective immediately, only registered owners will receive update and support. However, good news! Sean and Tim chose to concentrate their energy on creating a new Atari magazine! Yes, the first domestic magazine devoted to the Falcon computer will be named "Processor Direct." This magazine will tend towards news and reviews in a journal type format. It will cover a variety of columns devoted to everything from games to CAD. The first issue will probably hit the streets by the end of July. By the way, this magazine will include some ST/TT material because of the importance of covering the whole Atari market.

The Toad Computers RTC had Dave Troy, Charles Smeton and Tim Reyes attending. As a reader of this magazine, you should recognize Dave's name. Dave chatted about many issues including his company's two multisync monitors, which allow the same monitor to be used for ST and Falcon resolutions. Dave Troy also mentioned that Dave Small continues his plans to create a Falcon GCR that would emulate a Mac II level.

Charles gave us information on the latest version of his faxing program called *STraight FAX!*. During the past month, Charles released a new version of *STraight FAX* (V1.07). This version supports Supra's Silent Answer, Caller ID, and adds other new functions. Charles is working on Class 1 support and a Class 1 compatible version will appear in the next two to three months. By having Class 1 compatibility it will open *STraight FAX* up to a whole new range of modems, from low-end to high-end. Charles is working out MultiTOS and Power DOS/NET compatibility. His new SpeedoGDOS driver enables *ATARI WORKS* to print to fax.

Tim, of MaxWell CPU, has nearly finished the upgrade to *Silhouette. Silhouette Colortrace* is created to take advantage of TT and Falcon color graphics modes. It will actually autotrace in color (converting bitmapped color images into color vector graphics). *Silhouette Colortrace* will import and export a wide range of graphic formats. *Silhouette Colortrace* has a redesigned interface, supports SpeedoGDOS, and has compatibility with all versions of TOS. Once the final packaging is worked out, distribution will occur. Aimed at the desktop publisher, the graphic designer and the home computer user, *Silhouette ColorTrace* will appeal to various users. Now, people cannot be content with just black and white computer graphics. Also, this program will soon support Charles' *STraight Fax!* scanner drivers.

GEnie Tips

by Lou Rocha

This month I offer a short primer on GEnie commands, which I hope will be useful to new and experienced users. I am also aware that many GEnie customers use *Aladdin*, the excellent terminal program, but even they should find this information to be applicable. The following text has been downloaded from Page 11 for those who may be interested in using this information as an online help file.

Each day thousands of GEnie users read the messages left in the bulletin board areas of the various RoundTables. Each bulletin board contains a unique set of message bases that are specific to the interests of users in the respective RT. However, the structure of RT's is common.

How the Bulletin Board Is Set Up

Each RoundTable has its own Bulletin Board. This is an area where you can electronically post messages or respond to messages posted by others. The Bulletin Boards are organized into a series of Categories and Topics. Each Category is like a file drawer, and the topics are folders in the drawer.

Topics are started by the users of the RoundTable and then other users post messages in the topic. Think of the messages as the papers in the Topic folders.

The Bulletin Board Prompt

From your RoundTable menu, select the Bulletin Board item. There is no menu; all activity is done from a command prompt. The first time you enter a Bulletin Board, you will be given a prompt similar to the following:

```
Category 1 Club Business
    1 CATegories              10 INDex of topics
    2 NEW messages            11 SEArch topics
    3 SET category            12 DELete message
    4 DEScribe category       13 IGNore category
    5 TOPic list              14 PROmpt setting
    6 BROwse new msgs         15 SCRoll setting
    7 REAd a message          16 NAMe used in BB
    8 REPly to a topic        17 EXIt
    9 STArt a topic           18 HELp
     Enter #, <COMmand> or <HEL>p
    1?
```

The number before the question mark indicates the Category you are in. When you first enter the Bulletin Board, you will always be in Category 1. This is your "base" category.

At the "?" prompt, you can enter the number for a command, or the command itself. For example, to get a list of Categories, you could enter either CAT or 1 at the prompt.

Once you are more familiar with the commands, you can enter the command "PROmpt BRIef" and you will get a shorter prompt, like this:

```
Command: CATegories, TOPics, READ, REPly, BROwse, SETcat, EXIt, or HELp
1 ?
```

You can shorten the prompt even more. By entering "PROmpt NONe" you would get the following:

```
1 ?
```

The command "PROmpt FULl" will return you to the long prompt.

Using the Commands

The following explanations give more detailed descriptions of some of the more frequently used commands.

Checking Categories. The first thing you want to do is find out what Categories (subject areas) are available in the Bulletin Board. To do this, type "CAT" at the prompt (or enter "1"). You will be shown an index list, something like this:

```
1. Club Business
2. Diversions
3. Communications
4. Commercial Software
5. Freeware/Shareware
6. Developer's Forum
7. Hardware
8. Lisa/Mac XL
9. Press Releases
10. Open Window
```

Selecting a Category. Let's say, you want to check out the Freeware/Shareware Category. You would use the command "SET 5." You can also enter "3" (this is the number for the SET command in the menu prompt). You can now look at the contents of that category.

Browsing New Items. The "BROwse" command (item 6) will let you read new messages. You will also be given the opportunity to respond to each topic after its messages have been listed.

There is a heading message for each topic which contains the topic number, the date it was entered, and information about the user who created the topic. Next, the messages in the topic will list.

Relisting Messages. Once a message has been reviewed, it will no longer appear when you "browse." After reading all the messages from a topic, you will get the following prompt:

```
REPly to topic  QUIt reading  STArt a new topic  #, #-# read prior
Hit Return to continue?
```

You can review a message or group of messages in a topic by entering the message number (e.g. 1) or range of numbers (e.g. 2-8) at the prompt.

Entering a Message. After all the new messages for a topic have been listed, you are given the opportunity to respond. After the final message, you will see the prompt:

```
REPly to topic  QUIt reading  STArt a new topic  #, #-# read prior  Hit
Return to continue?
```

If you enter "REPly" the system will show:

```
Enter memo text. Type '*s' to send, '*h' for help.
1>
```

All you have to do is type in your text with a carriage return at the end of each line. A line number prompt will appear for the next line. If you want to change your message as you are entering it, there are commands listed in the User Guide which allow you to make corrections and changes.

When you have finished typing your message, enter *S on the next blank line and and it will be entered in the Topic.

If there were additional topics and messages, they would be listed after you enter your message (or after you hit Return at the prompt). At the end of each listing of topic and related messages, you are given the opportunity to reply. You can also use the "REPly" command to enter a message.

Too Many Messages?

Sometimes, there can be hundreds of messages in a topic and you may not feel like reading them all. You have a couple of options.

If you want to ignore existing new messages (messages posted since you last logged onto the bulletin board) within a specific topic in the current Category, you can enter IGNore # (the # specifies which topic you want to ignore. Ignoring these messages means that GEnie will not list messages in that topic as new. You can also type "IGNore CAT" to ignore all new messages in the current category. You can use "IGNore ALL" to ignore all new messages in all Categories. Ignored messages can still be read using the specific message numbers with the READ command. The IGNore command can be useful if you do not want to read all the new messages on a Board or if you haven't been on for a while, or a backlog of messages exists.

Other Commands

The following are some of the more frequently used BB commands. The commands can be abbreviated to three characters and can be either upper or lower case.

CANcel # – This command allows you to end participation in a Category (you will be resigning your membership so it will no longer be part of the All Categories group). This tells the RoundTable that you do not want to know about new messages in that category when you request a short display of new items. The # stands for the number of the category that you don't want to participate in any longer. You can "rejoin" a Category by using the "SET" command.

CATegories – This command provides a list of available Categories.

EXIt – This command returns you to the RoundTable menu from which you entered the Bulletin Board.

INDex – This command produces a descriptive index of topics within each Category. For each topic in a Category, the index shows the topic number, the short subject description, the number of messages in the topic, the topic status (either open or closed), and the author.

NAMe – NAMe changes your nickname for the current board. You will be prompted for the new name.

PROmpt – PROmpt lets you change the prompt format. "PROmpt FULl" gives you the long listing (the prompt lists all available commands). "PROmpt BRIef" gives you a shorter version (it shows only key commands) and "**PROmpt NONe**" gives you the shortest version (no commands shown).

REAd – This command allows you to read messages within the topic. The parameters for the **REAd** command are

READ # [optional parameters]

where # is the number (or range of numbers) of the topic(s) you want to read from (this is required). The # could also be the word "**All**" which would let you to read messages from all the topics in the current Category. The optional parameters are :

NEW: list all new messages

ALL: list all messages

LAST: list the last message entered in the topic

#–#: list messages within the range. If only 1 number is given, only that message will be listed. If you haven't read message 4, and you list message 5, a subsequent '**REAd NEW**' will only list unread messages greater than 5.

NOText: lists only who made the response and when it was made.

AUThor=name: lists those messages entered by the author specified by "**name**." The command is case blind and "**name**" can be any beginning portion of a name: "**AUThor=c**" would list messages of any author whose name begins with a "**c**".

DATe=YYMMDD: lists messages by date. The "=" sign could also be "<" (less than date) or ">" (greater than date). There should be no spaces when entering the command (eg, "**DATe=850925**").

REPly # – This command allows you to add a reply to the topic. The # specifies which topic within the category you want to reply to. If omitted, you will be prompted. The "**topic#**" is the number of the topic that contains the message you want to restore and "**message#**" is the number of the message to be restored. However, you cannot restore a message if the Sysop deleted it.

SCRoll – This lets you specify how many lines are displayed on your screen before the "**RETURN or Scroll**" prompt is given. A length of 0 means no scrolling. This command changes the length only during your RoundTable session. The "**Set Terminal Parameters**" menu item must be used to permanently change the length.

SEArch – The format for this command is "**SEArch /string/ All**." The command allows you to search for a particular string of text within the topics of the current Category. The "**/**" is used for demonstration. Any delimiter can be used. For example, "**SEA qPCq**" is the same as "**SEA /PC/**."

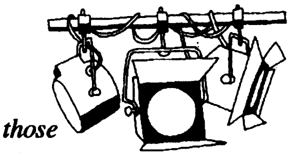
The "**string**" is any string of text at least three characters long and is case blind. The "**All**" is optional and allows you to search all Categories. A list of topics with your search string will be displayed.

TOPics – This command will give you a list of topics within the Category.

Well, that completes this lesson on GEnie commands. In the next issue I will offer some tips on using the library commands to search for files, list categories and, of course, execute downloads.

User Spotlight

by Lou Rocha



Doug Walter is one of those Atari owners who has been able to turn his hobby into productive employment. Doug runs his DTP business, Interface Support Services, using an assortment of Atari products. Let's meet Doug.

I was born a poor Atari user. Well, almost. Carbon dating techniques have placed my age somewhere around 23 years older than the dawn of Atari. By the early seventies, I was pursuing my dream: a career in cartooning and illustration. Unfortunately, the starving artist gig clashed with my landlord's nasty preoccupation with rent money, so I parked my pens and embarked on a temporary tour as a maintenance mechanic with a large metro hospital (insert Gilligan's Island tune here).

My little detour with that corporation was to last 22 years. I survived enough mergers and political wars to eventually manage my own crew at a separate campus. In the spring of 1991, our department was torched in a divisional rightsizing. The time was right to turn my expensive DTP hobby into a cash crop. I haven't looked back since.

I bought my first Atari in 1980, a 48k 800 to help design control sequences and flow charts. Among my supervisors and peers, having that fancy computer made me an instant expert, and forever changed the course of my employment there. I later enhanced my work with an ST and eventually, a Mega4 for design work brought home. My special niche became that of improving the user interface of various systems and programs. Interface Support Services was born out of that desire to stay employed while doing something enjoyable. My work comprises an overlapping mix of consultation, page layout, and design work.

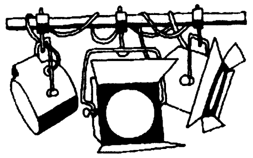
Although I use whatever type of equipment the client may have onsite, all my database, spreadsheet, text, and design work are done in my office on a TT with 20 MB of ram. For display, I use a 15" NEC multisynch monitor driven by a 32,000 color, 1024x768 Crazy Dots graphics card. Quantum 105, Maxtor 120, and Syquest drives, along with a scanner, modem, and a well–worn SLM804 laser round out my hardware inventory. All of the above is neatly compressed into a 4'x 8' room on the second floor of a 150–year–old farm house (built long before this area became Minneapolis). Add to that a drafting table and chair, file cabinets, software, supplies, books, fax, and stereo, and you have all the makings of chaos. I sit at a window overlooking beautiful Minnehaha park (of the Song of Hiawatha fame), with the wooded bluffs of the Mississippi beyond.

My most valuable tools are *Calamus SL*, *Data Manager*, and *Aladdin*. I also rely heavily on *Avant Vector*, Migraph's *OCR*, *Word Perfect*, *LDW Power*, and *Outline Art*. I use *Coalesce* with The Tray for minor scans. *Megapaint II*, *Touchup*, and the new *Invision Elite* are my main bitmap tools. *DynaCADD* sits here waiting to be learned.

I have come full circle in another way also. Back in 1967, I did my first programming using punch tapes on terminals linked to GE's timeshare mainframes. Sometimes, on nights when GEnie crawls, I wonder if they ever upgraded that old hardware. I originally joined GEnie for the legendary technical support. Undoubtedly, I wouldn't be in business without it. But, it is the social aspect I most look forward to every evening. I enjoy reading through the boards and topics, guessing at personality types and moods by the way thoughts are conveyed. I have read some people for so long, they seem like old friends. And indeed, some are!

Developer Spotlight

by Lou Rocha



John Eidsvoog is CEO, programmer, and co-founder of CodeHead Technologies, makers of top-notch utility and productivity software for Atari computers. He is also one of the most recognizable personalities in the Atari community and has a fascinating background in music. Read on...

My computing experience began in 1967 when I took a semester of Fortran programming at Augsburg College in Minneapolis. Computer time was scheduled on a time-sharing terminal connected to a mainframe at Honeywell Corporation. Feedback was provided by a daisywheel printhead and data I/O was handled by paper tape. It certainly makes me sound ancient. Anyway, I was a music major at Augsburg and this was my only computer exposure for the next 13 years.

I received a Master's degree in Jazz Composition from the New England Conservatory of Music in 1972 and proceeded with a relatively successful career in the music business, playing piano, woodwinds, and bass. If you don't mind a little name-dropping, I'll mention that I've played with a number of veteran big band figures (Vaughn Monroe, Ray McKinley, Ray & Bob Eberly, Helen O'Connell, Sammy Kaye, the Glenn Miller Orchestra), Andy Williams, Jaye P. Morgan, two years as synthesist on the John Davidson Show, and touring to many points throughout the world as musical director for Andy Gibb. I've also played keyboards for dozens of TV and film soundtracks.

What does this all have to do with computers? Well, not much I suppose, if musical equipment hadn't begun to use computer technology. In 1980, I bought an Apple II computer and began tinkering around with programming in BASIC and 6502 assembly language. By the mid-eighties I had accumulated a vast array of MIDI equipment (synthesizers) and was looking for an easy way to load and save my customized sounds via computer without having to use several different programs. The Atari ST was just coming out and seemed like the perfect thing because it had built-in MIDI ports; so I bought one in 1985 and proceeded to teach myself 68000 assembly language. I wrote a generic MIDI librarian and showed it to Hybrid Arts. It was released as *GenPatch* and I also wrote *HybriSwitch*, which allows the user to switch between multiple applications. Those who own *GenPatch* can see me winking at them in the info box.

Shortly after acquiring an Atari computer, I met Charles F. Johnson, a fellow musician and assembly language addict. We helped each other a lot in the early days as we learned the ropes and pitfalls of writing Atari GEM software. By early 1988, we had become quite frustrated with the slowdown and incompatibilities imposed by Atari's GDOS--so we set about to rewrite it with an efficient assembly language replacement. We soon found that if you build a better GDOS, the world will beat a path to your door, so we formed a partnership and started a company called CodeHead Software to sell *G+Plus*, our replacement for GDOS.

For those who are familiar with CodeHead, the rest is history. Shortly after releasing *G+Plus* in August of '88, we produced *MultiDesk*, a desk accessory that eliminates the 6-accessory limit and allows the unlimited loading of accessories at any time without rebooting. After that, CodeHead went on to create *HotWire, MaxiFile, MIDIMAX, CodeHead Utilities, LookIt & PopIt*, and *CodeKeys*.

Together, *HotWire* and *MaxiFile* provide a true alternative to the Atari GEM desktop. Instead of merely enhancing an existing graphical desktop full of windows and icons, we chose to develop a streamlined power system where the user customizes his work environment to suit his own tastes. An experienced user of *HotWire* and *MaxiFile* can outrun anyone using a conventional desktop system with windows, folders, icons, and the typical mouse activity required to operate them. Instead, a simple keypress or mouse click launches programs instantaneously from *HotWire*, where all applications are concentrated in a central location. File maintenance is equally powerful, with *MaxiFile* available directly from *HotWire* or from within applications.

MultiDesk adds to our desktop system by providing unparalleled flexibility in the handling of desk accessories. Much of our software communicates internally to provide a uniquely powerful system——one which gives power users more than they can ever use while maintaining a simplicity and ease of use for the beginner or intermediate computer user.

CodeHead's success can be attributed to attention to detail, compatibility, simplicity, and user support. I'm sure that another factor is the use of assembly language, which makes our software fast and compact. It seemed natural that when Branch Always Software approached the CodeHeads in December of '91 about buying the rights to *Quick ST*, we accepted. Charles took this excellent screen accelerator and turned it into the ultimate Atari utility, now known throughout the Atari world as *Warp 9*. The features of CodeHead's *Warp 9* take it far beyond the realm of a screen accelerator, including options for replacing the system screen font, loading background pictures, mouse effects, and a modular screen saver called Extend-O-Save. Some of the modules available for Extend-O-Save would even make the users of *After Dark* jealous.

We've also imported a number of foreign software and hardware packages, including *Avant Vector, MegaPaint*, the TOS Extension Card, *Calligrapher, Genus*, and the *Cherry Font* collection, each of which meets the high standards we require of our own software. It has been our pleasure to bring these quality tools to North America.

CodeHead is well-known for its excellent user support, both by phone and through on-line services. Our on-line home is GEnie (Category 32), where our customers know they can expect a quick and informative response to their questions and problems. Both Charles and I log onto GEnie almost every day (and usually several times a day) to provide the best support possible. Although we may refer some customers to the appropriate pages of the documentation, we often provide useful tips and advice that are available nowhere else.

Because CodeHead's offices are in my home, I have the luxury (or curse) of 24-hour access to most of CodeHead's equipment. My own desk contains three computer systems: a Mega ST4 with a T-16 accelerator and TOS 2.06 (via the TOS Extension card), mono and color monitors, a total of 312 megabytes of hard drive space (105-meg Quantum, 160-meg Miniscribe, 44-meg Syquest, ICD tape backup), and an HST modem−−a 26-meg TT030 with a 17" high-res monitor, 173 megabytes of storage (85-meg Maxtor, 88-meg Syquest), and a FAX modem−−and a 50MHz 486 clone with local bus SVGA, CD-ROM, and tape backup. An Epson Action Laser printer, the SVGA monitor, and the modems can easily be switched between the different computers via switch boxes.

At my side is an array of about two dozen synthesizers, sound processors, mixers, sequencers, tape decks, compact disk, TV, grand piano, amplifiers, and a MIDI switcher that can control the MIDI gear from any of the computers. This equipment has been getting a workout lately as our newest product, *MIDI Spy*, undergoes its final testing. *MIDI Spy* is a MIDI recorder that works completely in the background, allowing you to record and play back MIDI data effortlessly. Recording is accomplished automatically without requiring any forethought. It's like a MIDI stenographer that never sleeps. You can also play back MIDI masterpieces in the background while you do other work on your Atari, totally unaffected by the playback.

Elsewhere at CodeHead, we have about seven other computers and a few more printers. Needless to say, it's a joy to come to work and the commute takes only about seven seconds from our master bedroom to the third floor of our Los Angeles historic home.

My wife, Julie, works at Paramount studios and is one of the top music copyists in Los Angeles. She works daily with noted TV and film composers. We've been married for close to 23 years and can attribute our success to mutual understanding and sensitivity to each other's needs (and maybe the fact that we have no kids ‹grin›).

Through diligent effort, CodeHead Technologies has acquired a substantial following in the Atari community. It's ironic that although Charles and I are both notable musicians (Charles is a distinguished guitar player who's played with Stanley Clarke, Al Jarreau, and Hiroshima, to name a few), we've never played together as a duo or in a group. Perhaps that's the secret to our success as partners in CodeHead Technologies, although I suspect it is related more to our devotion to Atari computers and our customers.

I told you John Eidsvoog was a real interesting guy, didn't I? Well, that wraps up GEnie Notes for May. I hope you will be able to join us next month. At press time, the ST RoundTable was gearing up for several Falcon-related conferences. You can count on reading the highlights in the next issue. See you then.

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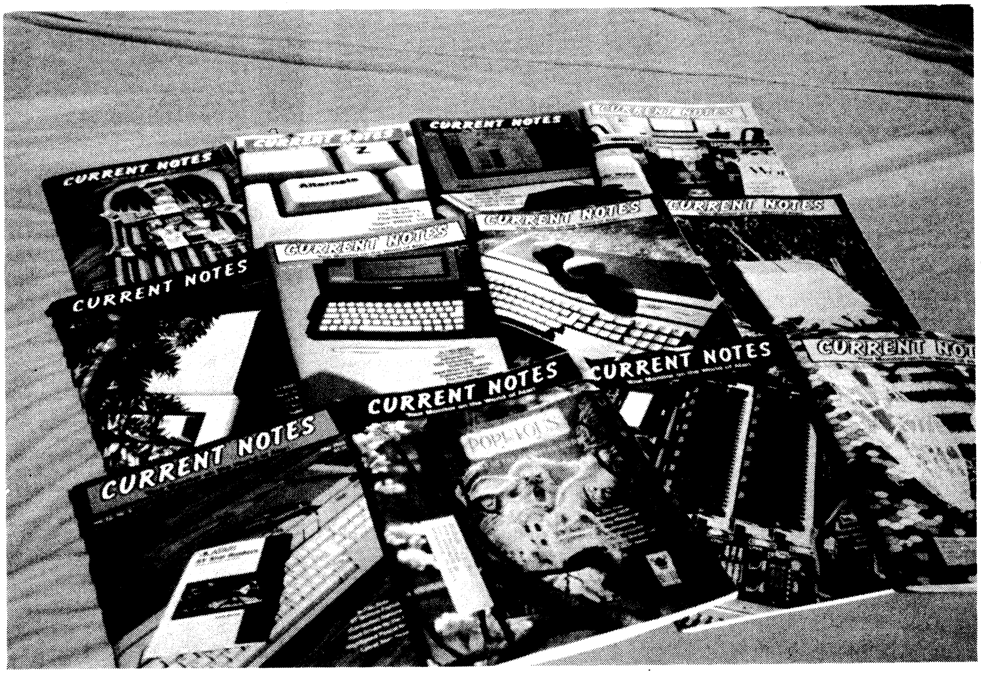

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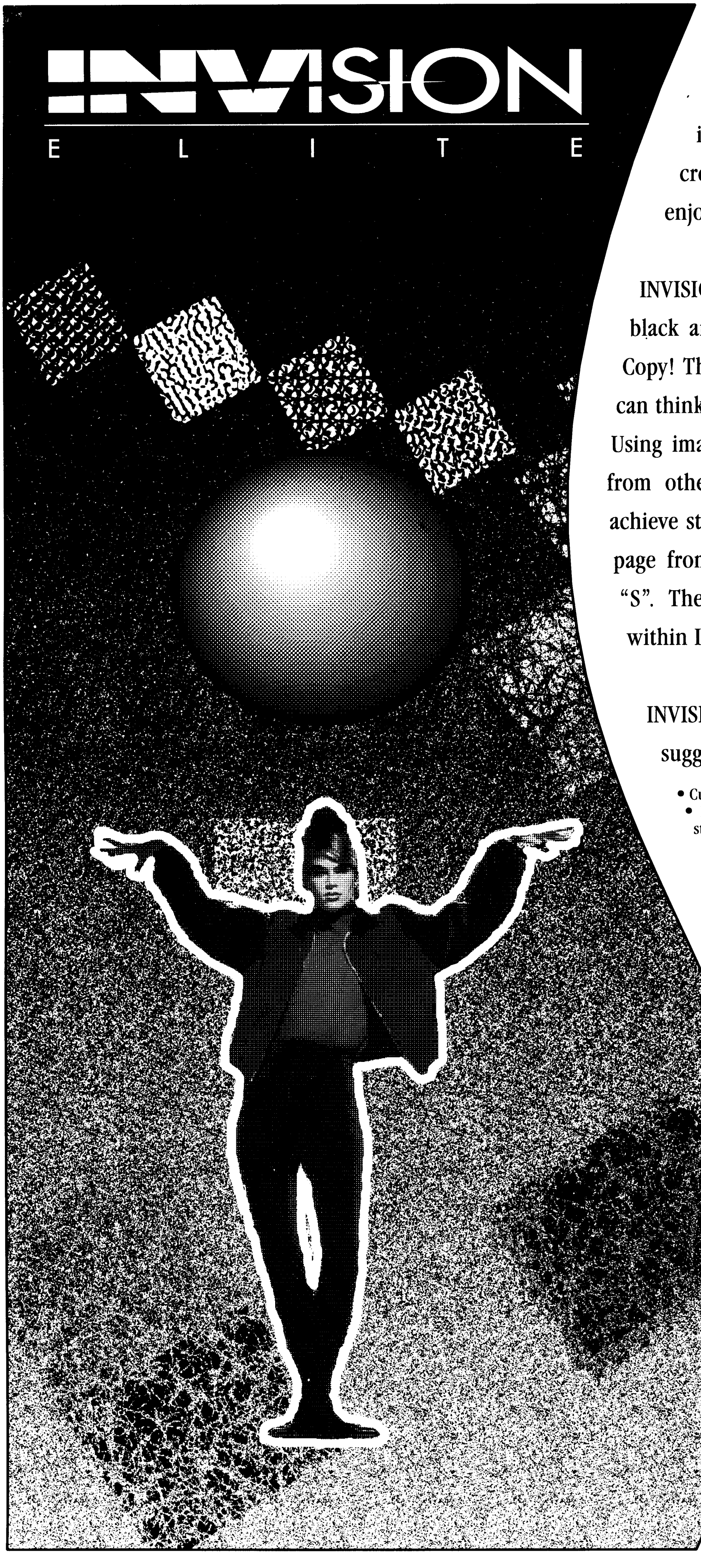

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